File 350:Derwent WPIX 1963-2001/UD,UM &UP=200130
File 344:CHINESE PATENTS ABS APR 1985-2001/May
File 347:JAPIO OCT 1976-2001/JAN(UPDATED 010507)
File 371:French Patents 1961-2001/BOPI 200119

Set	Items	Description
S1	2	AU="ASIUS":AU="ASIUS JEROME"
S2	18	AU="FESSI H":AU="FESSI HATEM"
S3	10	AU="GOUCHET F":AU="GOUCHET FRANCK ARNO"
S4	2	AU="LAGLENNE":AU="LAGLENNE BENEDICTE"
S5	1	AU="LAUGIER-LAGLENNE E"
S6	3	AU="LAUGIER L":AU="LAUGIER LAGLENNE ELISABETH"
S7	**2**	**S1 AND S2 AND S3 AND S4 AND S5:S6**
S8	23	S1:S6 NOT S7
S9	112798	IMPLANT?
S10	0	S8 AND S9
S11	23	S8
S12	23	IDPAT (sorted in duplicate/non-duplicate order)
S13	**16**	**IDPAT (primary/non-duplicate records only)**

7/7/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

012325588
WPI Acc No: 1999-131695/199911
Injectable implant of bioabsorbable microspheres in gel - for aesthetic dermatology, plastic surgery, etc.
Patent Assignee: BIOPHARMEX HOLDING SA (BIOP-N); BIOPHARMEX HOLDINGS SA (BIOP-N)
Inventor: ASIUS J ; FESSI H ; GOUCHET F ; LAGLENNE B ; LAUGIER-LAGLENNE E ; GOUCHET F A ; LAUGIER L E
Number of Countries: 083 Number of Patents: 009
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 9856431	A1	19981217	WO 98FR1241	A	19980612	199911	B
FR 2764514	A1	19981218	FR 977334	A	19970613	199911	
AU 9882182	A	19981230	AU 9882182	A	19980612	199920	
BR 9804962	A	19990908	BR 984962	A	19980612	200003	
			WO 98FR1241	A	19980612		
EP 969883	A1	20000112	EP 98932196	A	19980612	200008	
			WO 98FR1241	A	19980612		
MX 9901569	A1	19990801	MX 991569	A	19990215	200063	
HU 200001465	A2	20001030	WO 98FR1241	A	19980612	200064	
			HU 20001465	A	19980612		
JP 2000516839	W	20001219	WO 98FR1241	A	19980612	200104	
			JP 99501805	A	19980612		
KR 2000068167	A	20001125	WO 98FR1241	A	19980612	200130	
			KR 99701267	A	19990213		

Priority Applications (No Type Date): FR 977334 A 19970613
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9856431	A1	F	20	A61L-027/00	
	Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW				
	Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW				
FR 2764514	A1			A61L-027/00	
AU 9882182	A			A61L-027/00	Based on patent WO 9856431
BR 9804962	A			A61L-027/00	Based on patent WO 9856431
EP 969883	A1	F		A61L-027/00	Based on patent WO 9856431
	Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE				

MX 9901569 A1 A61L-027/00
HU 200001465 A2 A61L-027/00 Based on patent WO 9856431
JP 2000516839 W 14 A61L-027/00 Based on patent WO 9856431
KR 2000068167 A A61L-027/00 Based on patent WO 9856431
Abstract (Basic): WO 9856431 A

An injectable implant for administration to humans comprises bio-absorbable microspheres or microparticles suspended in a gel.

USE - The implant may be used for filling wrinkles and fine lines, skin cracks, scars, for reparative or plastic surgery, aesthetic dermatology, and filling gums following dental treatment.

ADVANTAGE - The product has the advantage of being bioabsorbable, so that problems due to long term migration into the body, such as can occur with silicone implants, are eliminated. It is also free from all animal products, and so does not cause allergic reactions.

Dwg.0/0

Derwent Class: A11; A23; A96; B07; D22; P34
International Patent Class (Main): A61L-027/00
International Patent Class (Additional): A61L-027/00

7/7/2 (Item 1 from file: 371) This is a duplicate of 7/7/1, page 1.
000954311
Titre: IMPLANT INJECTABLE EN SOUS-CUTANE OU INTRADERMIQUE A BIORESORBABILITE CONTROLEE POUR LA CHIRURGIE REPARATRICE OU PLASTIQUE ET LA DERMATOLOGIE ESTHETIQUE
Deposant: BIOPHARMEX HOLDING SA
Nom et Adresse du Deposant: BIOPHARMEX HOLDING SA (SOCIETE ANONYME LUXEMBOURGEOISE) - Deposant - 11 BOULEVARD ROYAL L 2449 LUXEMBOURG (LU)
Nom Inventeurs: ASIUS JEROME - 23 RUE DE L AIGUILLERIE 34000 MONTPELLIER (FR-34000); FESSI HALEM - 40 RUE D AUBIGNY 69000 LYON (FR-69000); GOUCHET FRANCK ARNO - 8 ALLEE DES CHASSEURS 45450 DONNERY (FR-45450); LAGLENNE BENEDICTE - 23 RUE DE L AIGUILLERIE 34000 MONTPELLIER (FR-34000); LAUGIER LAGLENNE ELISABETH - 25 27 RUE TRONCHET 75008 PARIS (FR-75008
Nom Mandataire: CABINET NETTER
Nature de Publication: Brevet
Information de Brevet et Priorites (Pays, Numero, Date):
Numero Publication: FR 2764514 - 19981218
Numero Depot: FR 977334 - 19970613
Priorites: FR 977334 - 19970613
Rapport de Recherche Preliminaire (Brevet/Reference, Code de Pertinence):
Cites dans le rapport de recherche
EP 711548 A (Cat. X)
WO 9633751 A (Cat. X)
EP 251695 A (Cat. X)
EP 648480 A (Cat. A)
US 5258028 A (Cat. A)
WO 9313755 A (Cat. A)
US 5451406 A (Cat. A)
Resume:

Implant injectable destine au comblement des rides, ridules, depressions cutanees et cicatrices, pour la chirurgie reparatrice ou plastique et la dermatologie esthetique. L'invention concerne l'utilisation de microspheres de polymeres bioresorbables en suspension dans un gel vecteur. La bioresorbabilite des microspheres est controlee et permet de realiser des implants dont la remanence est bien definie et limitee volontairement a 3 ans. Les caracteristiques du produit selon l'invention sont la commodite d'emploi sans manipulation prealable, la seringuabilite du produit, l'efficacite des microspheres qui favorisent la fibrose, la resorbabilite en un temps controle des microspheres comme du gel vecteur, l'absence d'allergenicite du produit, qui rend tout test prealable inutile.

Classification Internationale (Principale): A61L-027/00
Descripteurs Francais: CHIRURGIE REPARATRICE; ESTHETIQUE; DERMATOLOGIE;

IMPLANT; INJECTION; DERME; PEAU; RESORBABILITE; OS; MICROSPHERE; SUSPENSION; GEL; POLYMERE; CELLULOSE; DERIVE
Descripteurs Anglais: RECONSTRUCTIVE SURGERY; ESTHETICS; DERMATOLOGY; IMPLANT; INJECTION; DERMA; SKIN; BONE; ABSORBABILITY; MICROSPHERE; SUSPENSION; GEL; POLYMER; CELLULOSE; DERIVATIVE
Forme Juridique (Type, Date de l'action, No. de BOPI, Description):

Publication	19981218	9851	Date de publication
Rapp de Rech	19981218	9851	Date de Rapport de Recherche
Revendic mod			Revendication modifiee
Delivrance	19990903	9935	Date de delivrance
Registre CA	20000522		CA - Changement d'adresse N117386

13/TI/1 (Item 1 from file: 350)
DIALOG(R)File 350:(c) 2001 Derwent Info Ltd. All rts. reserv.
Method for producing a concentrated aqueous colloidal dispersion of nanoparticles comprises formation of an oil-in-water emulsion and distillation of the solvent from the emulsion

13/TI/2 (Item 2 from file: 350)
DIALOG(R)File 350:(c) 2001 Derwent Info Ltd. All rts. reserv.
Preparing an aqueous colloidal dispersion of nanoparticles for use as coating or as pharmaceutical vectors

13/TI/3 (Item 3 from file: 350)
DIALOG(R)File 350:(c) 2001 Derwent Info Ltd. All rts. reserv.
New method for preparing vesicular nano-capsules - uses two non-oily phases immiscible with each other and third oily phase, has pharmaceutical, cosmetic, dietetic and plant health use

13/TI/4 (Item 4 from file: 350)
DIALOG(R)File 350:(c) 2001 Derwent Info Ltd. All rts. reserv.
Reticulated poly-carboxylic co-polymers with poly-saccharide component - for controlled drug release, bio-adhesives, and delivery of drugs to the colon

13/TI/7 (Item 7 from file: 350)
DIALOG(R)File 350:(c) 2001 Derwent Info Ltd. All rts. reserv.
New colloidal system prepn. of acylated cyclodextrin nano spheres for carriers for pharmaceuticals - by preparing liq. phases contg. acyl gp. modified cyclodextrin and water and enzyme and combining, for cosmetics, chemicals and biodegradable, low viscosity suspensions for plant protection agent or pigment in printing

13/TI/12 (Item 12 from file: 350)
DIALOG(R)File 350:(c) 2001 Derwent Info Ltd. All rts. reserv.
Liposome suspensions prodn. - by adding soln. of amphiphilic lipid to aq. phase

13/TI/14 (Item 14 from file: 350)
DIALOG(R)File 350:(c) 2001 Derwent Info Ltd. All rts. reserv.
Prodn. of colloidally dispersible nano-particles - by pptn. of soln. with non-solvent

13/TI/15 (Item 15 from file: 350)
DIALOG(R)File 350:(c) 2001 Derwent Info Ltd. All rts. reserv.
Nanocapsules prodn. - by treating soln. of wall and core materials with non-solvent contg. surfactant

File 348:EUROPEAN PATENTS 1978-2001/May W02
File 349:PCT Fulltext 1983-2001/UB=20010531, UT=20010517

Set	Items	Description
S1	2	AU="ASIUS JEROME"

S2 19 E3, E5
S3 5 AU="GOUCHET FRANCK":AU="GOUCHET FRANK"
S4 2 AU="LAGLENNE BENEDICTE"
S5 1 AU="LAUGIER-LAGLENNE ELISABETH"
S6 1 AU="LAUGIER LAGLENNE ELISABETH"
S7 2 S1 AND S2 AND S3 AND S4 AND S5:S6
S8 19 S1:S6 NOT S7
S9 19 IDPAT (sorted in duplicate/non-duplicate order)
S10 12 IDPAT (primary/non-duplicate records only)

7/3,AB/1 (Item 1 from file: 348) This is a duplicate of 7/7/1. page 1
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2001 European Patent Office. All rts. reserv.
01016837
IMPLANT FOR SUBCUTANEOUS OR INTRADERMAL INJECTION
SUBKUTAN ODER INTRADERMAL INJIZIERBARES IMPLANTAT IN DER PLASTISCHEN ODER WIEDERHERSTELLENDEN CHIRURGIE
IMPLANT INJECTABLE PAR VOIE SOUS-CUTANEE OU INTRADERMIQUE
PATENT ASSIGNEE:
Biopharmex Holdings S.A., (2680710), 38, avenue du X Septembre, 2550 Luxembourg, (LU), (Applicant designated States: all)
INVENTOR:
ASIUS, Jerome , Les Campagnes, Le Mas Neuf, Route de Saint Aunes, F-34130 Maugio, (FR)
FESSI, Hatem , 40, rue d'Aubigny, F-69003 Lyon, (FR)
GOUCHET, Franck , 8, allee des Chasseurs, F-45450 Donnery, (FR)
LAGLENNE, Benedicte , Les Campagnes, Le Mas Neuf, Route de Saint Aunes, F-34130 Maugio, (FR)
LAUGIER-LAGLENNE, Elisabeth , 25-27, rue Tronchet, F-75008 Paris, (FR
LEGAL REPRESENTATIVE:
Rousset, Jean-Claude (18341), Cabinet Netter 40, rue Vignon, 75009 Paris, (FR)
PATENT (CC, No, Kind, Date): EP 969883 A1 000112 (Basic)
WO 9856431 981217
APPLICATION (CC, No, Date): EP 98932196 980612; WO 98FR1241 980612
PRIORITY (CC, No, Date): FR 977334 970613
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE
INTERNATIONAL PATENT CLASS: A61L-027/00
NOTE: No A-document published by EPO
LANGUAGE (Publication,Procedural,Application): French; French; French

7/3,AB/2 (Item 1 from file: 349)
DIALOG(R)File 349:PCT Fulltext This is a duplicate of 7/7/1, page 1
(c) 2001 WIPO/MicroPat. All rts. reserv.
00612059
IMPLANT FOR SUBCUTANEOUS OR INTRADERMAL INJECTION
IMPLANT INJECTABLE PAR VOIE SOUS-CUTANEE OU INTRADERMIQUE
Patent Applicant/Assignee:
BIOPHARMEX HOLDING SA, BIOPHARMEX HOLDING S.A. , 38, avenue du X Septembre, L-2550 Luxembourg , LU
Inventor(s):
ASIUS Jerome , ASIUS, Jerome , Les Campagnes, Le Mas Neuf, Route de Saint Aunes, F-34130 Maugio , FR
FESSI Hatem , FESSI, Hatem , 40, rue d'Aubigny, F-69003 Lyon , FR
GOUCHET Franck , GOUCHET, Franck , 8, allee des Chasseurs, F-45450 Donnery , FR
LAGLENNE Benedicte , LAGLENNE, Benedicte , Les Campagnes, Le Mas Neuf, Route de Saint Aunes, F-34130 Maugio , FR
LAUGIER-LAGLENNE Elisabeth , LAUGIER-LAGLENNE, Elisabeth , 25-27, rue Tronchet, F-75008 Paris , FR
Patent and Priority Information (Country, Number, Date):
Patent: WO 9856431 A1 19981217

Application: WO 98FR1241 19980612 (PCT/WO FR9801241)
Priority Application: FR 977334 19970613
Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
Publication Language: French
Filing Language: French
Fulltext Word Count: 2586
English Abstract

The invention concerns an injection implant for filling up wrinkles, thin lines, skin cracks and scars, for reparative or plastic surgery, aesthetic dermatology, and for filling up gums in dental treatment. The invention concerns the use of biologically absorbable polymer microspheres or microparticles suspended in a gel. Said suspension is produced either ready-for-use or freeze-dried. The biological absorbability of the microspheres is controlled and enables the production of implants having well defined persistence and deliberately limited to 3 years.

10/TI/1 (Item 1 from file: 348)
DIALOG(R)File 348:(c) 2001 European Patent Office. All rts. reserv.
METHOD FOR PRODUCING AQUEOUS COLLOIDAL DISPERSIONS OF NANOPARTICLES

10/TI/2 (Item 2 from file: 348)
DIALOG(R)File 348:(c) 2001 European Patent Office. All rts. reserv.
METHOD FOR PRODUCING AN AQUEOUS COLLOIDAL DISPERSION OF NANOPARTICLES

10/TI/3 (Item 3 from file: 348)
DIALOG(R)File 348:(c) 2001 European Patent Office. All rts. reserv.
METHOD FOR PREPARING VESICULAR NANOCAPSULES

10/TI/4 (Item 4 from file: 348)
DIALOG(R)File 348:(c) 2001 European Patent Office. All rts. reserv.
POLYCARBOXYLIC BASED CROSS-LINKED COPOLYMERS

10/TI/5 (Item 5 from file: 348)
DIALOG(R)File 348:(c) 2001 European Patent Office. All rts. reserv.
PREPARATION AND USE OF NOVEL CYCLODEXTRIN-BASED DISPERSIBLE COLLOIDAL SYSTEMS IN THE FORM OF NANOSPHERES

10/TI/6 (Item 6 from file: 348)
DIALOG(R)File 348:(c) 2001 European Patent Office. All rts. reserv.
PREPARATION AND USE OF NOVEL CYCLODEXTRIN-BASED DISPERSIBLE NANOVESICULAR COLLOIDAL SYSTEMS IN THE FORM OF NANOCAPSULES

10/TI/8 (Item 8 from file: 348)
DIALOG(R)File 348:(c) 2001 European Patent Office. All rts. reserv.
Process for the preparation of dispersible colloidal systems of amphiphilic lipids in the form of submicronic liposomes

10/TI/10 (Item 10 from file: 348)
DIALOG(R)File 348:(c) 2001 European Patent Office. All rts. reserv.
Process for preparing a colloidal and disperse system in the shape of nanocapsules.

10/TI/11 (Item 11 from file: 348)
DIALOG(R)File 348:(c) 2001 European Patent Office. All rts. reserv.
Preparation process for disperse colloidal systems from a substance in the shape of nanoparticles.

File 155:MEDLINE(R) 1966-2001/Jun W1
File 5:Biosis Previews(R) 1969-2001/May W4
File 73:EMBASE 1974-2001/May W4
File 34:SciSearch(R) Cited Ref Sci 1990-2001/Jun W1
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec

Set	Items	Description
S1	284	AU="FESSI H":AU="FESSI HATEM"
S2	4	AU="GOUCHET F":AU="GOUCHET F."
S3	3	AU="LAUGIER L"
S4	287	S1:S3
S5	0	S1 AND S2 AND S3
S6	4	S1 AND S2
S7	0	S1 AND S3
S8	0	S2 AND S3
S9	4	S6
S10	**3**	**RD (unique items)**
S11	1987944	IMPLANT? OR TRANSPLANT? OR PROSTHE?
S12	8	(S4 AND S11) NOT S10
S13	**8**	**RD (unique items)**

10/6/1 (Item 1 from file: 155)
08993006 96318589 PMID: 8762227
[Bioavailability and tolerance of indomethacin as polymeric mini-capsules in man]
Jan-Feb 1996

13/6,K/1 (Item 1 from file: 155)
DIALOG(R)File 155:(c) format only 2000 Dialog Corporation. All rts. reserv.
07178358 92329674 PMID: 1352706
Effects of free and liposome-encapsulated taxol on two brain tumors xenografted into nude mice.
Jan-Feb 1992
Riondel J; Jacrot M; Fessi H ; Puisieux F; Potier
; Alkaloids--therapeutic use--TU; Brain Neoplasms--pathology--PA; Brain Tissue Transplantation ; Drug Compounding; Drug Screening Assays, Antitumor; Glioblastoma--pathology--PA; Glioma--pathology--PA; Mice; Mice, Nude; Neoplasm Transplantation ; Paclitaxel; Polyethylene Glycols; Shoulder; Transplantation , Heterologous; Transplantation , Heterotopic; Tumor Cells, Cultured- transplantation --TR; Vehicles

13/6,K/3 (Item 1 from file: 73)
DIALOG(R)File 73:(c) 2001 Elsevier Science B.V. All rts. reserv.
05784559 EMBASE No: 1994179385
Anti-metastatic activity of MDP-L-alanyl-cholesterol incorporated into various types of nanocapsules
1994
Barratt G.; Puisieux F.; Yu W.-P.; Foucher C.; Fessi H. ; Devissaguet -Ph. J.
SECTION HEADINGS:
016 Cancer
026 Immunology, Serology and Transplantation
030 Clinical and Experimental Pharmacology
037 Drug Literature Index

13/6,K/4 (Item 2 from file: 73)
DIALOG(R)File 73:(c) 2001 Elsevier Science B.V. All rts. reserv.
05784558 EMBASE No: 1994179384
Improved intracellular delivery of a muramyl dipeptide analog by means of nanocapsules
1994
Morin C.; Barratt G.; Fessi H. ; Devissaguet J.P.; Puisieux F.
SECTION HEADINGS:

016 Cancer
026 Immunology, Serology and Transplantation
030 Clinical and Experimental Pharmacology
037 Drug Literature Index

13/6,K/5 (Item 3 from file: 73)
DIALOG(R)File 73:(c) 2001 Elsevier Science B.V. All rts. reserv.
05710967 EMBASE No: 1994115321
New techniques for preparing submicronic emulsions: Application to amphotericin B
1994
Tabosa do Egito E.S.; Fessi H. ; Appel M.; Puisieux F.; Bolard J.; Devissaguet J.P.
The use of amphotericin B for the treatment of disseminated mycoses in AIDS and transplanted patients is limited by the toxicity of the commercial injectable form (Fungizone(R)). It has...

13/6,K/6 (Item 4 from file: 73)
DIALOG(R)File 73:(c) 2001 Elsevier Science B.V. All rts. reserv.
04149456 EMBASE No: 1990031998
Delivery of MDP-L-alanyl-cholesterol to macrophages: Comparison of liposomes and nanocapsules
1989
Barratt G.M.; Yu W.P.; Fessi H. ; Devissaguet J.P.; Petit J.F.; Tenu J.P.; Israel L.; Morere J.F...
SECTION HEADINGS:
016 Cancer
026 Immunology, Serology and Transplantation
030 Clinical and Experimental Pharmacology
037 Drug Literature Index

13/6,K/7 (Item 1 from file: 34)
DIALOG(R)File 34:(c) 2001 Inst for Sci Info. All rts. reserv.
05231624 Genuine Article#: VJ511 Number of References: 42
Title: IN-VITRO AND IN-VIVO EVALUATION OF A NEW AMPBOTERICIN-B EMULSION-BASED DELIVERY SYSTEM (Abstract Available)
Author(s): DOEGITO EST; APPEL M; FESSI H ; BARRATT G; PUISIEUX F; DEVISSAGUET JP
...Research Fronts: 003 (LIPOSOMAL AMPHOTERICIN-B (AMBISOME) PROPHYLAXIS OF INVASIVE FUNGAL-INFECTIONS; NEUTROPENIC CANCER-PATIENTS; BONE-MARROW TRANSPLANT RECIPIENTS)

13/7/2 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2000 Dialog Corporation. All rts. reserv.
05157100 87112068 PMID: 3543289
["Carrier" or "modulated distribution" forms, new systems for drug administration]
Les formes "vectorisees" ou a "distribution modulee", nouveaux systemes d'administration des medicaments.
Benoit JP; Couvreur P; Devissaguet JP; Fessi H ; Puisieux F; Roblot-Treupel L
Journal de pharmacie de Belgique (BELGIUM) Sep-Oct 1986, 41 (5) p319-29, ISSN 0047-2166 Journal Code: JNB
Languages: FRENCH
Document type: Journal Article; Review
Record type: Completed
(29 Refs.)

File 350:Derwent WPIX 1963-2001/UD,UM &UP=200130
File 344:CHINESE PATENTS ABS APR 1985-2001/May
File 347:JAPIO OCT 1976-2001/JAN(UPDATED 010507)
File 371:French Patents 1961-2001/BOPI 200119

Set	Items	Description
S1	7580	POLYLACTI? OR POLYGLYCOL?
S2	2721	PLA OR PGA OR PLGA
S3	15255	LACTIC()ACID OR GLYCOLIC()ACID
S4	1320082	POLYMER? ? OR HOMOPOLYMER? ?
S5	661	POLY(2W)LACTIC()ACID
S6	146401	IMPLANT? OR TRANSPLANT? OR PROSTHE?
S7	7506	CMC OR PHMC
S8	9650	CARBOXY()METHYL()CELLULOSE
S9	6666	CARBOXYMETHYL()CELLULOSE
S10	4283	CARBOXYMETHYLCELLULOSE
S11	2894	HYDROXY()PROPYL()METHYL()CELLULOSE
S12	1647	HYDROXYPROPYL()METHYL()CELLULOSE
S13	822	HYDROXYPROPYLMETHYL()CELLULOSE
S14	916	HYDROXYPROPYLMETHYLCELLULOSE
S15	149006	GEL OR GELS OR GELLING OR GELAT?
S16	8194	IC="A61L-027-00":IC="A61L-027/000"
S17	10774	S1 OR S2 OR S3()S4 OR S5
S18	**3**	**S6 AND S7:S14 AND S15 AND S17**
S19	3	S17 AND S7:S14 AND S16
S20	**2**	**S19 NOT S18**

18/26/3 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2001 Derwent Info Ltd. All rts. reserv.
009915415
WPI Acc No: 1994-183125/199422
Sustained-release microspheres requiring no surgical implant - contains hydrophobic antipsychotic encapsulated in biodegradable polymer, allowing prolonged therapeutic effect by infrequent admin

18/7/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2001 Derwent Info Ltd. All rts. reserv.
011266926
WPI Acc No: 1997-244829/199722
Porous biodegradable bone grafting matrix - comprises bound network of insol. bio-polymer fibres, binder and immobile calcium phosphate mineral and maintains structural integrity and porosity for bone replacement
Patent Assignee: ORQUEST INC (ORQU-N)
Inventor: KWAN M K; PACETTI S D; YAMAMOTO R K
Number of Countries: 072 Number of Patents: 009
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 9714376	A1	19970424	WO 96US16496	A	19961015	199722	B
AU 9675167	A	19970507	AU 9675167	A	19961015	199735	
US 5776193	A	19980707	US 955523	A	19951016	199834	
			US 96633554	A	19960417		
EP 855884	A1	19980805	EP 96937686	A	19961015	199835	
			WO 96US16496	A	19961015		
AU 705303	B	19990520	AU 9675167	A	19961015	199931	
JP 11513590	W	19991124	WO 96US16496	A	19961015	200006	
			JP 97515932	A	19961015		
CN 1204245	A	19990106	CN 96198883	A	19961015	200007	
NZ 321756	A	19991129	NZ 321756	A	19961015	200031	
			WO 96US16496	A	19961015		
US 6187047	B1	20010213	US 955523	A	19951016	200111	
			US 96633554	A	19960417		
			US 98110726	A	19980707		

Priority Applications (No Type Date): US 96633554 A 19960417; US 955523 A 19951016; US 98110726 A 19980707
Cited Patents: US 5208219; US 5236456; US 5328955; US 5413989
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9714376	A1	E	21	A61F-002/28	
Designated States (National): AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IL IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN					
Designated States (Regional): AT BE CH DE DK EA ES FI FR GB GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG					
AU 9675167	A			A61F-002/28	Based on patent WO 9714376
US 5776193	A			A61F-002/28	Provisional application US 955523
EP 855884	A1	E		A61F-002/28	Based on patent WO 9714376
Designated States (Regional): AL AT BE CH DE DK ES FI FR GB GR IE IT LI LT LU LV MC NL PT RO SE SI					
AU 705303	B			A61F-002/28	Previous Publ. patent AU 9675167 Based on patent WO 9714376
JP 11513590	W		17	A61F-002/28	Based on patent WO 9714376
CN 1204245	A			A61F-002/28	
NZ 321756	A			A61F-002/28	
US 6187047	B1			A61F-002/28	Provisional application US 955523 Div ex application US 96633554 Div ex patent US 5776193

Abstract (Basic): WO 9714376 A

A porous biodegradable matrix for the replacement of bone, which maintains physical integrity for at least 3 days after implant and its porosity for 7-14 days after implant into a physiological environment in which bone replacement is occurring, comprises a bound network of insoluble biopolymer fibre, binder and immobile calcium phosphate mineral.

The binder is selected from soluble collagen (preferred), gelatin , polylactic acid, polyglycolic acid , copolymers of lactic and glycolic acids, polycaprolactone, carboxymethylcellulose , cellulose esters, dextrose, dextran, chitosan, hyaluronic acid, ficol, chondroitin, sulphate, polyvinyl alcohol, polyacrylic acid, polypropylene glycol, polyethylene glycol, water soluble polyacrylates and water soluble polymethacrylates.

The biopolymer comprises fibrillar collagen.

The mineral preferably comprises hydroxyapatite, of particle diameter at least 5 mu m. It is released as particles into the physiological environment during replacement with bone in a time-release profile which maintains the physical integrity and porosity as described. The collagen and immobilised calcium phosphate are preferably in the form of mineralised collagen containing 30-80 wt.% collagen.

The matrix further may contain marrow cells, autogenous bone and one or more bone growth factors.

USE - The matrix is useful for bone repair. It can be used as a grafting material and/or as a delivery vehicle for osteogenic growth factor. It may be mixed with autogenous bone marrow and implanted for bone regeneration. It is particularly useful for spinal fusion, filling bone defects, fracture repair, grafting periodontal defects, maxifacial reconstruction, joint reconstruction and other orthopaedic uses.

ADVANTAGE - Structural integrity and porosity are maintained for sufficient time to augment the bone replacement process.

Dwg.0/0

Derwent Class: A96; B04; D22; P32
International Patent Class (Main): A61F-002/28
International Patent Class (Additional): A61F-002/02; A61F-002/30; A61K-027/12; A61K-027/24

18/7/2 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX

010889011
WPI Acc No: 1996-385962/199639
Biocompatible filler for implantable soft tissue prostheses - using non-toxic materials with soft feel, readily metabolised and excreted in case of accidents to shell container
Patent Assignee: MENTOR CORP (MENT-N)
Inventor: BHATE A; BRUNSTEDT M; PURKAIT B; WOO Y
Number of Countries: 009 Number of Patents: 003
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 727232	A2	19960821	EP 96300768	A	19960205	199639	B
EP 727232	A3	19961106	EP 96300768	A	19960205	199651	
US 5658329	A	19970819	US 95389751	A	19950214	199739	

Priority Applications (No Type Date): US 95389751 A 19950214
Cited Patents: 2.Jnl.Ref; EP 186430; EP 338813; EP 575035; FR 2568127; FR 2677539; FR 2691068; FR 2693901; FR 2707499; US 4731081; US 5219360; US 5344451; WO 9300867; WO 9320780; WO 9322987; WO 9407434; WO 9425078
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 727232	A2	E	8		
Designated States (Regional): BE DE ES FR GB IT NL SE					
US 5658329	A		6		

Abstract (Basic): EP 727232 A

Implantable soft tissue prosthesis comprising: (a) a hollow shell, with inner vol. and exterior surface, formed as a flexible elastomeric envelope, adapted, when filled to be implanted surgically and to retain a desired shape; and (b) a gel or viscous liq. filling material which has osmolality in the range 200-400 mOsm/kg and radiation penetration comparable with or better than 0.9% saline, and is made from polyvinyl pyrrolidone, polyvinyl alcohol, hydroxypropylmethyl cellulose , polyethylene oxide, hyaluronic acid, Na or Ca alginate, hydrogel poly-urethane, hydroxyethyl starch, polyglycolic acid, polyacrylamide, hydroxyethyl methacrylate, or other biopolymers derived naturally, including Na kinate, seaweed, agar, or their mixts.

The alginate is from Laminaria hyperborea, or is bacterial alginate modified by an epimerase, and should have a guluronic acid content above 30%. Antimicrobial agents are micronazole, ceftazidime or other third generation cephalosporin, or amphotericin B.

USE - The filled shell is used for soft tissue medical implants , e.g., for breast, testicle, chin, cheek, pectoral, or calf, as silicone gel filled implants are at present. Antimicrobials, antibacterial and antifungal agents are also opt. added to the compsn. to maintain sterility of the filler.

ADVANTAGE - The present filler materials are all biocompatible and non-toxic, and can be metabolised and/or excreted without adverse effects. The radiolucency of the fillers are also greater than silicone gels .

Dwg.0/0

Abstract (Equivalent): US 5658329 A

An implantable soft tissue prosthesis comprising:

a hollow shell formed of a flexible elastomeric envelope, said shell having an inner volume and an exterior surface, said prosthesis being adapted to be surgically implanted and to retain a desired shape when filled with a filling material;

said filling material comprising a gel or viscous liquid containing polyacrylamide and derivatives of polyacrylamide having a solid content of such a formulation in the range of 2 to 20%, a viscosity in the range of 15,000 to 75,000 cps and a molecular weight in the range of 200,000 to 1.5 million;

said filling material having an osmolality in the range of 200 to 400 mOsm/kg, and a radiation penetration comparable with or better than

that of 0.9% saline.
Dwg.0/0
Derwent Class: A11; A14; A25; A96; B04; D22; P32; P34
International Patent Class (Main): A61F-002/02; A61L-027/00
International Patent Class (Additional): A61F-002/12

20/7/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

010048962
WPI Acc No: 1994-316673/199439
Compsns. for tissue augmentation - contg. a pseudo-plastic polymer carrier, e.g., hyaluronic acid
Patent Assignee: Q MED AB (QMED-N); MEDINVENT (MEDI-N)
Inventor: AGERUP B; GERUP B
Number of Countries: 020 Number of Patents: 006
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9421299	A1	19940929	WO 94SE60	A	19940127	199439 B
JP 8507713	W	19960820	JP 94520914	A	19940127	199702
			WO 94SE60	A	19940127	
US 5633001	A	19970527	US 9334442	A	19930319	199727
			WO 94SE60	A	19940127	
			US 95525558	A	19950919	
EP 784487	A1	19970723	EP 94909365	A	19940127	199734
			WO 94SE60	A	19940127	
JP 2995090	B2	19991227	JP 94520914	A	19940127	200006
			WO 94SE60	A	19940127	
CA 2158638	C	19991130	CA 2158638	A	19940127	200016
			WO 94SE60	A	19940127	

Priority Applications (No Type Date): US 9334422 A 19930319; US 9334442 A 19930319; US 95525558 A 19950919
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9421299	A1	E	17	A61K-047/38	
Designated States (National): CA JP US					
Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE					
JP 2995090	B2		4	A61L-027/00	Previous Publ. patent JP 8507713
					Based on patent WO 9421299
CA 2158638	C	E		A61K-047/38	Based on patent WO 9421299
JP 8507713	W		14	A61L-027/00	Based on patent WO 9421299
US 5633001	A		4	A61F-002/02	Cont of application US 9334442
					Based on patent WO 9421299
EP 784487	A1	E		A61K-047/38	Based on patent WO 9421299
Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LI LU NL PT SE					

Abstract (Basic): WO 9421299 A

The following are claimed: (A) tissue augmentation comprises injecting a compsn. of a pseudoplastic carrier (comprising a tissue augmenting material and opt. an active ingredient) into a desired site on the human or animal body; (B) biocompatible compsn. for tissue augmentation comprises: (a) a pseudoplastic polymer carrier, in amts. of 0.05-50 wt.% of the total compsn.; and (b) one or more water-insoluble and biodegradable tissue augmenting substances.

The compsn. is injected under fibre optical guidance. The injection is repeated after an appropriate time period.

The pseudoplastic polymer carrier is selected from glucose amine glucans, esp. hyaluronic acid, hydroxyethyl cellulose, carboxymethyl cellulose , xanthan gum or an alginate. The tissue augmenting substance is a polymer selected from collagen, starch, dextranomer, polylactide (and copolymers of this) and poly-beta-hydroxybutyrate (and copolymers of this). The tissue augmenting substances are surface modified to

stimulate the inhibit growth of specific cell types. The compsn. also comprises one or more therapeutically active ingredients which are opt. in sustained release form.

USE/ADVANTAGE - The compsns. can act as an in vivo cell specific stimulator of cell proliferation to develop specific types of tissues such as connective tissues or smooth muscles. The process can be used for therapeutic (e.g. enlargement of weakened sphincters, vocal cords or the oesophagus) or cosmetic (e.g. to enlarge lips or to fill out age-related diminished fat deposits around the eyes) purposes. The compsns. can be injected through thin needles, do not threaten health, and have a tissue residence time which is short enough to disappear when their function is no longer desirable but long enough to be worth the effort of implantation.

Dwg.0/0

Abstract (Equivalent): US 5633001 A

A biocompatible composition which provides for tissue augmentation, which comprises

(i) a pseudoplastic polymer carrier 0.05-50% (w/w) of the total composition; and

(ii) a water insoluble, biocompatible and biodegradable tissue augmenting substance comprising a dextranomer.

Dwg.0/0

Derwent Class: A96; B05; D22; P32; P34

International Patent Class (Main): A61F-002/02; A61K-047/38; A61L-027/00

International Patent Class (Additional): A61K-047/30; A61K-047/36

20/7/2 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX

009342639

WPI Acc No: 1993-036102/199304

Compsn. for stimulating growth of bone or cartilage - contains osteogenic protein, biodegradable porous polymer matrix and sequestrant for the protein, esp. an alkylcellulose

Patent Assignee: GENETICS INST INC (GEMY)

Inventor: ISAACS B S; KENLEY R A; PATEL H; RON E; TUREK T J; TUREK T

Number of Countries: 025 Number of Patents: 014

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 9300050	A1	19930107	WO 92US5309	A	19920622	199304	B
AU 9222542	A	19930125	AU 9222542	A	19920622	199319	
FI 9305732	A	19931220	WO 92US5309	A	19920622	199410	
			FI 935732	A	19931220		
NO 9304573	A	19931213	WO 92US5309	A	19920622	199412	
			NO 934573	A	19931213		
EP 591392	A1	19940413	EP 92914339	A	19920622	199415	
			WO 92US5309	A	19920622		
JP 6508777	W	19941006	WO 92US5309	A	19920622	199444	
			JP 93501625	A	19920622		
AU 663328	B	19951005	AU 9222542	A	19920622	199547	
EP 591392	B1	19960911	EP 92914339	A	19920622	199641	
			WO 92US5309	A	19920622		
DE 69213739	E	19961017	DE 613739	A	19920622	199647	
			EP 92914339	A	19920622		
			WO 92US5309	A	19920622		
ES 2094359	T3	19970116	EP 92914339	A	19920622	199710	
US 5597897	A	19970128	WO 92US5309	A	19920622	199710	
			US 9381378	A	19930629		
KR 145278	B1	19980715	WO 92US5309	A	19920622	200018	
			KR 93703979	A	19931221		
NO 307402	B1	20000403	WO 92US5309	A	19920622	200023	
			NO 934573	A	19931213		
MX 192070	B	19990520	MX 923083	A	19920622	200056	

Priority Applications (No Type Date): US 91718721 A 19910621; US 9381378 A 19930629
Cited Patents: US 4637931; US 4917893; EP 145240; US 4563489; WO 8909788; WO 9009783; WO 9200718
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9300050	A1	E	27	A61F-002/02	
Designated States (National): AU BR CA FI JP KR NO RU US					
Designated States (Regional): AT BE CH DE DK ES FR GB GR IT LU MC NL SE					
AU 9222542	A			A61F-002/02	Based on patent WO 9300050
FI 9305732	A			A61L-000/00	
NO 9304573	A			A61K-009/16	
EP 591392	A1	E		A61F-002/02	Based on patent WO 9300050
Designated States (Regional): AT BE CH DE DK ES FR GB GR IT LI LU MC NL SE					
JP 6508777	W			A61L-027/00	Based on patent WO 9300050
AU 663328	B			A61K-009/00	Previous Publ. patent AU 9222542 Based on patent WO 9300050
EP 591392	B1	E	11	A61F-002/02	Based on patent WO 9300050
Designated States (Regional): AT BE CH DE DK ES FR GB GR IT LI LU MC NL SE					
DE 69213739	E			A61F-002/02	Based on patent EP 591392 Based on patent WO 9300050
ES 2094359	T3			A61F-002/02	Based on patent EP 591392
US 5597897	A		7	C07K-014/51	Based on patent WO 9300050
KR 145278	B1			A61K-038/39	
NO 307402	B1			A61K-009/16	Previous Publ. patent NO 9304573
MX 192070	B			A61K-009/014	

Abstract (Basic): WO 9300050 A

Compsn. contains an osteogenic protein (I), a polymeric matrix (A) (i.e. homo- or co-polymer of lactic and/or glycolic acids) and, as (I)-sequestering agent, an alkylcellulose (II), hyaluronic acid, Na alginate, poly(ethylene glycol), polyoxyethylene, carboxyvinyl polymer or poly(vinyl alcohol).

Also new are (1) particles of (A) of Spherical dia. 150-850 microns and surface area 0.02-4 sq.m/g. and (2) compsn. consisting of (I) and solubilising agent (III).

Pref. (I) is a bone morphogenic protein (esp. BMP-21, transforming growth factor beta, Vgr-1, OP-1, COP-5 and COP-7. (II) is hydroxypropylmethylcellulose or carboxymethylcellulose (CMC), and (A) is esp. a copolymer.

USE/ADVANTAGE - (I) is sequestered in situ by (II) for sufficient time to induce cartilage and/or bone growth when the compsn. is implanted into an injury site, e.g. as a substitute for autologous bone grafts, in treatment of fractures, for bone defect repair etc. The new porous particles permit infiltration by bone progenitor cells and their surface area is optimal for inducing bone formation. Being porous they are readily biodegradable and can adsorb proteins. Additionally the particles when formulated with a sequestering agent, can be used as a substitute for bone wax to provide a bioerodible haemostat

Dwg.0/0

Abstract (Equivalent): EP 591392 B

A composition comprising a pharmaceutically acceptable admixture of (i) an osteogenic protein; (ii) a polymer matrix component selected from the group consisting of poly (lactic acid), poly(glycolic acid), and copolymers of lactic acid and glycolic acid; and (iii) an osteogenic protein-sequestering alkyl-cellulose or an osteogenic protein-sequestering agent selected from the group consisting of hyaluronic acid, sodium alginate, poly(ethylene glycol), polyoxyethylene oxide, carboxyvinyl polymer, and poly(vinyl alcohol).

Abstract (Equivalent): US 5597897 A

A composition comprising a pharmaceutically acceptable admixture of (i) an osteogenic protein;

(ii) a polymer matrix component selected from the group consisting of poly (lactic acid), poly(glycolic acid), and copolymers of lactic acid and glycolic acid; and

(iii) an osteogenic protein-sequestering alkylcellulose, wherein said alkylcellulose is present in an amount of approximately 0.5-20 wt % based on total composition weight, wherein said osteogenic protein is not encapsulated within the polymer matrix.

Dwg.0/0

Derwent Class: A96; B04; P32; P34; P73
International Patent Class (Main): A61F-002/02; A61K-009/00; A61K-009/014; A61K-009/16; A61K-038/39; A61L-000/00; A61L-027/00 ; C07K-014/51
International Patent Class (Additional): A61F-002/044; A61F-002/28; A61F-002/44; A61K-009/14; A61K-037/000; A61K-037/02; A61K-037/12; A61P-019/10; B32B-005/16

File 348:EUROPEAN PATENTS 1978-2001/May W02
File 349:PCT Fulltext 1983-2001/UB=20010531, UT=20010517

Set	Items	Description
S1	13510	POLYLACTI? OR POLYGLYCOL?
S2	7931	PLA OR PGA OR PLGA
S3	19324	LACTIC()ACID OR GLYCOLIC()ACID
S4	252685	POLYMER? ? OR HOMOPOLYMER? ?
S5	1449	POLY(2W)LACTIC()ACID
S6	73159	IMPLANT? OR TRANSPLANT? OR PROSTHE?
S7	6784	CMC OR PHMC
S8	29713	CARBOXY()METHYL()CELLULOSE
S9	16210	CARBOXYMETHYL()CELLULOSE
S10	13556	CARBOXYMETHYLCELLULOSE
S11	12259	HYDROXY()PROPYL()METHYL()CELLULOSE
S12	5026	HYDROXYPROPYL()METHYL()CELLULOSE
S13	3478	HYDROXYPROPYLMETHYL()CELLULOSE
S14	4689	HYDROXYPROPYLMETHYLCELLULOSE
S15	175965	GEL OR GELS OR GELLING OR GELAT?
S16	1569	HPMC
S17	21052	S1 OR S2 OR S3()S4 OR S5
S18	4114	S17 AND (S7:S14 OR S16)
S19	1597	(S7:S14 OR S16)(S)S15 AND S17
S20	153	S19(S)S6
S21	2493	IC="A61L-027/00"
S22	0	S21 AND S22
S23	12	S20 AND S21
S24	12	IDPAT (sorted in duplicate/non-duplicate order)
S25	**12**	**IDPAT (primary/non-duplicate records only)**

25/TI/4 (Item 4 from file: 348)
DIALOG(R)File 348:(c) 2001 European Patent Office. All rts. reserv.
Method for improving implant fixation.

25/TI/5 (Item 5 from file: 349)
DIALOG(R)File 349:(c) 2001 WIPO/MicroPat. All rts. reserv.
SEMI-INTERPENETRATING POLYMER NETWORKS

25/TI/7 (Item 7 from file: 349)
DIALOG(R)File 349:(c) 2001 WIPO/MicroPat. All rts. reserv.
IMPLANTABLE ACRYLAMIDE COPOLYMER HYDROGEL FOR THERAPEUTIC USES

25/TI/9 (Item 9 from file: 349)
DIALOG(R)File 349:(c) 2001 WIPO/MicroPat. All rts. reserv.
HYALURONAN BASED BIODEGRADABLE SCAFFOLDS FOR TISSUE REPAIR

25/TI/10 (Item 10 from file: 349)
DIALOG(R)File 349:(c) 2001 WIPO/MicroPat. All rts. reserv.

METHODS AND COMPOSITIONS FOR THE MODULATION OF CELL PROLIFERATION AND WOUND HEALING

25/TI/12 (Item 12 from file: 349)
DIALOG(R)File 349:(c) 2001 WIPO/MicroPat. All rts. reserv.
MODULATION OF CELL PROLIFERATION AND WOUND HEALING

25/3,AB/1 (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2001 European Patent Office. All rts. reserv.
00851935
Method of making in situ filler material for mammary, penile and testicular prosthesis and tissue expanders
Verfahren zur Herstellung in situ von einem Fullmaterial fur Brust-, Penis- und Hodenprothese, und Gewebedilatatoren
Procede pour la fabrication in situ de matiere de remplissage pour prothese mammaire, penienne et testiculaire et dilatateurs de tissu
PATENT ASSIGNEE:
MENTOR CORPORATION, (981121), 5425 Holister Avenue, Santa Barbara, CA 93111, (US), (applicant designated states: DE;ES;FR;GB;IT;NL)
INVENTOR:
Purkait, Bobby, 2995 East Valley Road, Montecito, California 93108, (US)
LEGAL REPRESENTATIVE:
Thomson, Paul Anthony et al (36701), Potts, Kerr & Co. 15, Hamilton Square, Birkenhead Merseyside L41 6BR, (GB)
PATENT (CC, No, Kind, Date): EP 784987 A2 970723 (Basic)
EP 784987 A3 990407
APPLICATION (CC, No, Date): EP 97300087 970108;
PRIORITY (CC, No, Date): US 585622 960116
DESIGNATED STATES: DE; ES; FR; GB; IT; NL
INTERNATIONAL PATENT CLASS: A61L-027/00 ; A61F-002/12
ABSTRACT EP 784987 A2

An inflatable prosthesis which contains a dehydrated substance that forms a gel when mixed with an aqueous solution. The dehydrated substance is a biocompatible material such as an hydrophilic polymer which includes but is not limited to polyacrylamide, polyvinylprolidone, hydroxypropyl methylcellulose , polyvinyl alcohol, polyethylene oxides, polypropylene oxides, polyethylene glycol, polylactic , polyglycoloic acids, hydrogel polyurethane, chrondotoin sulfate, hyaluronic acid and alginate. The prosthesis includes a flexible inflatable outer shell that has an inner cavity. The inner cavity may contain the sterile dehydrated substance. The prosthesis is provided to the surgical site while the substance is in the dehydrated state. An initial volume of aqueous solution can be added to the inner cavity of the outer shell. The dehydrated substance combines with the aqueous solution to form a gel within the implant . The semi-inflated prosthesis can be implanted into a breast and inflated to a desired size with an additional volume of aqueous solution. The dehydrated substance may be coated along the inner surface of the prosthesis to form a lubricant which reduces crease-fold rupture. As an alternate embodiment, the dehydrated substance may be supplied in a package separate from the outer shell. An aqueous solution can be added to the package in situ to form a gel which can be subsequently added to the inner cavity of the outer shell.

ABSTRACT WORD COUNT: 220
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	9707W4	606
SPEC A	(English)	9707W4	3164
Total word count - document A			3770
Total word count - document B			0
Total word count - documents A + B			3770

25/3,AB/2 (Item 2 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00779175
Filling material for soft tissue implant prostheses and implants made therewith
Fullmaterial fur implantierbare Prothesen aus Weichgewebe und Implantate daraus
Materiau de remplissage pour protheses d'implant en tissu mou et implants realises avec celui-ci
PATENT ASSIGNEE:
MENTOR CORPORATION, (981121), 5425 Holister Avenue, Santa Barbara, CA 93111, (US), (applicant designated states: BE;DE;ES;FR;GB;IT;NL;SE)
INVENTOR:
Brunstedt, Michael, 4630 W.Pioneer No.256, Irving, Texas 75061, (US)
Purkait, Bobby, 2995 E. Valley Road, Montecito, California 93108, (US)
Bhate, Anand, 2117 Estrada Parkway, No.1423, Irving, Texas 75061, (US)
Woo, Yi-Ren, 613 Oak Hollow Lane, Flower Mound, Texas 75028, (US)
LEGAL REPRESENTATIVE:
Thomson, Paul Anthony (36701), Potts, Kerr & Co. 15, Hamilton Square, Birkenhead Merseyside L41 6BR, (GB)
PATENT (CC, No, Kind, Date): EP 727232 A2 960821 (Basic)
EP 727232 A3 961106
APPLICATION (CC, No, Date): EP 96300768 960205;
PRIORITY (CC, No, Date): US 389751 950214
DESIGNATED STATES: BE; DE; ES; FR; GB; IT; NL; SE
INTERNATIONAL PATENT CLASS: A61L-027/00 ; A61F-002/12
ABSTRACT EP 727232 A3
A new soft tissue implant filling material is disclosed. The material may be polyvinylpyrollidone, polyvinyl alcohol, hydroxypropylmethyl cellulose , polyethylene oxide, hyaluronic acid, sodium or calcium alginate, hydrogel polyurethane, hydroxyethyl starch, polyglycolic acid, polyacrylamide, hydroxyethylmethacrylate (HEMA), and several naturally derived biopolymers including sodium kinate, seaweed, and agar.
ABSTRACT WORD COUNT: 61
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPAB96	700
SPEC A	(English)	EPAB96	3937
Total word count - document A			4637
Total word count - document B			0
Total word count - documents A + B			4637

25/3,AB/3 (Item 3 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00770837
OSTEOPLASTIC GRAFT
OSTEOPLASTISCHES TRANSPLANTAT
GREFFON OSTEOPLASTIQUE
PATENT ASSIGNEE:
YAMANOUCHI PHARMACEUTICAL CO. LTD., (274783), No. 3-11 Nihonbashi-Honcho, 2-chome Chuo-ku, Tokyo 103, (JP), (applicant designated states: AT;BE;CH;DE;DK;ES;FR;GB;GR;IE;IT;LI;LU;NL;PT;SE)
INVENTOR:
YOKOTA, Shoji, 144-16, Nakashinden Yaizu-shi, Shizuoka 425, (JP)
SHIMOKAWA, Seitaro, 12-19, Takayanagi 1-chome Fujieda-shi, Shizuoka 426, (JP)
SONOHARA, Ritsu, 180-1, Ozumi, Yaizu-shi Shizuoka 425, (JP)
OKADA, Akira, 12-6, Izumi-cho, Fujieda-shi Shizuoka 426, (JP)
TAKAHASHI, Koichiro, 4-2, Kitakasai 4-chome Edogawa-ku, Tokyo 134, (JP)

LEGAL REPRESENTATIVE:
Geering, Keith Edwin (30911), REDDIE & GROSE 16 Theobalds Road, London WC1X 8PL, (GB)
PATENT (CC, No, Kind, Date): EP 784985 A1 970723 (Basic)
WO 9610426 960411
APPLICATION (CC, No, Date): EP 95932925 950928; WO 95JP1970 950928
PRIORITY (CC, No, Date): JP 94261980 940930
DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; LU; NL; PT; SE
INTERNATIONAL PATENT CLASS: A61L-027/00
ABSTRACT EP 784985 A1

A bone-forming graft which comprising a bone morphogenetic protein carried on a composite porous body, said composite porous body comprising a porous frame of a bioabsorbable hydrophilic material and a surface layer of a bioabsorbable polymer material. In particular, the present invention relates to a bone-forming graft in which the bioabsorbable hydrophilic material is one or more compounds selected from a group consisting of gelatin, hyaluronic acid, a hyaluronic acid derivative, collagen, a collagen derivative, chitosan, a chitosan derivative, and triethanolamine alginate, and the bioabsorbable polymeric material is one or more compounds selected from a group consisting of a polylactic acid, a copolymer of a polylactic acid and a polyglycolic acid, and a copolymer of poly(bis(p-carboxyphenoxy)propane)anhydride and sebacic acid.

As the graft is excellent in formability and workability and has an internal structure suitable for in vivo bone formation, bone formation occurs not only at the periphery of the graft but also within the graft.

ABSTRACT WORD COUNT: 156
LANGUAGE (Publication,Procedural,Application): English; English; Japanese
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	9707W4	512
SPEC A	(English)	9707W4	12516
Total word count - document A			13028
Total word count - document B			0
Total word count - documents A + B			13028

25/3,AB/6 (Item 6 from file: 349)
DIALOG(R)File 349:PCT Fulltext
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a duplicate of 7/7/1 on page 1

00612059
IMPLANT FOR SUBCUTANEOUS OR INTRADERMAL INJECTION
IMPLANT INJECTABLE PAR VOIE SOUS-CUTANEE OU INTRADERMIQUE
Patent Applicant/Assignee:
BIOPHARMEX HOLDING SA, BIOPHARMEX HOLDING S.A. , 38, avenue du X Septembre, L-2550 Luxembourg , LU
Inventor(s):
ASIUS Jerome, ASIUS, Jerome , Les Campagnes, Le Mas Neuf, Route de Saint Aunes, F-34130 Maugio , FR
FESSI Hatem, FESSI, Hatem , 40, rue d'Aubigny, F-69003 Lyon , FR
GOUCHET Franck, GOUCHET, Franck , 8, allee des Chasseurs, F-45450 Donnery , FR
LAGLENNE Benedicte, LAGLENNE, Benedicte , Les Campagnes, Le Mas Neuf, Route de Saint Aunes, F-34130 Maugio , FR
LAUGIER-LAGLENNE Elisabeth, LAUGIER-LAGLENNE, Elisabeth , 25-27, rue Tronchet, F-75008 Paris , FR
Patent and Priority Information (Country, Number, Date):
Patent: WO 9856431 A1 19981217
Application: WO 98FR1241 19980612 (PCT/WO FR9801241)
Priority Application: FR 977334 19970613
Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE

CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
Publication Language: French
Filing Language: French
Fulltext Word Count: 2586
English Abstract
The invention concerns an injection implant for filling up wrinkles, thin lines, skin cracks and scars, for reparative or plastic surgery, aesthetic dermatology, and for filling up gums in dental treatment. The invention concerns the use of biologically absorbable polymer microspheres or microparticles suspended in a gel. Said suspension is produced either ready-for-use or freeze-dried. The biological absorbability of the microspheres is controlled and enables the production of implants having well defined persistence and deliberately limited to 3 years.

25/3,AB/8 (Item 8 from file: 349)
DIALOG(R)File 349:PCT Fulltext
(c) 2001 WIPO/MicroPat. All rts. reserv.
00565903
IMPROVED BIORESORBABLE SEALANTS FOR POROUS VASCULAR GRAFTS
MATERIAUX D'ETANCHEITE A BIORESORPTION AMELIORES POUR GREFFONS VASCULAIRES POREUX
Patent Applicant/Assignee:
MEADOX MEDICALS INC, MEADOX MEDICALS, INC. , 112 Bauer Drive, Oakland, NJ 07436 , US
Inventor(s):
LENTZ David J, LENTZ, David, J. , 140 Hidden Road, Andover, MA 01810 , US
LOOMIS Gary L, LOOMIS, Gary, L. , 98 Skyline Drive, Morristown, NJ 07960 , US
MORONI Antonio, MORONI, Antonio , 43 Burnham Road, Morris Plains, NJ 07950 , US
DePREKER Jennifer, DePREKER, Jennifer , 72 Becker Avenue, Rochelle Park, NJ 07662 , US
Patent and Priority Information (Country, Number, Date):
Patent: WO 9810804 A1 19980319
Application: WO 97US16161 19970911 (PCT/WO US9716161)
Priority Application: US 96713801 19960913
Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW GH KE LS MW SD SZ UG ZW AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
Publication Language: English
Filing Language: English
Fulltext Word Count: 9857
English Abstract
A bioresorbable sealant composition useful for impregnating implantable soft-tissue prostheses includes at least two polysaccharides in combination to form a hydrogel or sol-gel. The sealant compositions may optionally include a bioactive agent and/or be cross-linked subsequent to application of these compositions to the substrate surface.

25/3,AB/11 (Item 11 from file: 349)
DIALOG(R)File 349:PCT Fulltext
(c) 2001 WIPO/MicroPat. All rts. reserv.
00443599
PROCESS FOR THE PREPARATION OF AQUEOUS DISPERSIONS OF PARTICLES OF WATER-SOLUBLE POLYMERS AND THE PARTICLES OBTAINED
PROCEDE DE PREPARATION DE DISPERSIONS AQUEUSES DE PARTICULES DE POLYMERES HYDROSOLUBLES ET PARTICULES AINSI OBTENUES
Patent Applicant/Assignee:
CR BARD INC

LEHIGH UNIVERSITY
Inventor(s):
VANDERHOFF John W
LU Cheng Xun
LEE Clarence C
TSAI Chi-Chun
Patent and Priority Information (Country, Number, Date):
Patent: WO 9639464 A1 19961212
Application: WO 96US10249 19960606 (PCT/WO US9610249)
Priority Application: US 95466676 19950606
Designated States: JP AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE
Publication Language: English
Fulltext Word Count: 29869
English Abstract

A process for the preparation of crosslinked water-soluble polymer particles comprising, combining an aqueous polymer solution comprising a water-soluble polymer, particularly a polysaccharide, and an aqueous medium, and an oil medium so as to form an emulsion of droplets of the water-soluble polymer, and adding to the emulsion a crosslinking agent capable of crosslinking the water-soluble polymer so as to form crosslinked water-soluble polymer particles, the particles formed thereby and aqueous dispersions thereof. The invention also encompasses a method comprising, administering to a patient in need of treatment an aqueous suspension of the water-soluble polymer particles.

File 350:Derwent WPIX 1963-2001/UD,UM &UP=200130
File 344:CHINESE PATENTS ABS APR 1985-2001/May
File 347:JAPIO OCT 1976-2001/JAN(UPDATED 010507)
File 371:French Patents 1961-2001/BOPI 200119

Set	Items	Description
S1	7580	POLYLACTI? OR POLYGLYCOL?
S2	2721	PLA OR PGA OR PLGA
S3	15255	LACTIC()ACID OR GLYCOLIC()ACID
S4	1320082	POLYMER? ? OR HOMOPOLYMER? ?
S5	661	POLY(2W)LACTIC()ACID
S6	146401	IMPLANT? OR TRANSPLANT? OR PROSTHE?
S7	7506	CMC OR PHMC
S8	9650	CARBOXY()METHYL()CELLULOSE
S9	6666	CARBOXYMETHYL()CELLULOSE
S10	4283	CARBOXYMETHYLCELLULOSE
S11	2894	HYDROXY()PROPYL()METHYL()CELLULOSE
S12	1647	HYDROXYPROPYL()METHYL()CELLULOSE
S13	822	HYDROXYPROPYLMETHYL()CELLULOSE
S14	916	HYDROXYPROPYLMETHYLCELLULOSE
S15	149006	GEL OR GELS OR GELLING OR GELAT?
S16	356	HPMC
S17	3	(S1 OR S2 OR S3()S4 OR S5) AND S6 AND S7:S14 AND S15
S18	0	(S1 OR S2 OR S3()S4 OR S5) AND S6 AND S15 AND S16
S19	8194	IC="A61L-027-00":IC="A61L-027/000"
S20	0	(S1 OR S2 OR S3()S4 OR S5) AND S16 AND S19

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File 155:MEDLINE(R) 1966-2001/Jun W1
File 144:Pascal 1973-2001/Jun W1
File   5:Biosis Previews(R) 1969-2001/May W4
File   6:NTIS 1964-2001/Jun W3
File   8:Ei Compendex(R) 1970-2001/May W4
File  65:Inside Conferences 1993-2001/May W4
File  77:Conference Papers Index 1973-2001/May
File  73:EMBASE 1974-2001/May W4
File  34:SciSearch(R) Cited Ref Sci 1990-2001/Jun W1
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
File  94:JICST-EPlus 1985-2001/May W1
File  35:Dissertation Abstracts Online 1861-2001/Jun
Set     Items   Description
S1      13033   POLYLACTI? OR POLYGLYCOL?
S2      22588   PLA OR PGA OR PLGA
S3      90046   LACTIC()ACID OR GLYCOLIC()ACID
S4    1258114   POLYMER? ? OR HOMOPOLYMER? ?
S5       4958   POLY(2W)LACTIC()ACID
S6    2420116   IMPLANT? OR TRANSPLANT? OR PROSTHE?
S7      16528   CMC OR PHMC
S8        494   CARBOXY()METHYL()CELLULOSE
S9       5695   CARBOXYMETHYL()CELLULOSE
S10      8974   CARBOXYMETHYLCELLULOSE
S11        69   HYDROXY()PROPYL()METHYL()CELLULOSE
S12       388   HYDROXYPROPYL()METHYL()CELLULOSE
S13       500   HYDROXYPROPYLMETHYL()CELLULOSE
S14      3306   HYDROXYPROPYLMETHYLCELLULOSE
S15   1089288   GEL OR GELS OR GELLING OR GELAT?
S16         4   S1:S5 AND S6 AND S8:S14(10N)S15
S17         4   RD (unique items)
S18         9   (S1:S5 AND S6 AND S8:S14 AND S15) NOT S16
S19         9   RD (unique items)

 17/6,K/2     (Item 1 from file: 144)
DIALOG(R)File 144:(c) 2001 INIST/CNRS. All rts. reserv.
  14952338   PASCAL No.: 01-0104361
(Hydrogel pre-filled breast  implants. Our experience since 15 years.)
  2001
 Copyright (c) 2001 INIST-CNRS. All rights reserved.
(Hydrogel pre-filled breast  implants. Our experience since 15 years.)
  L'auteur  rapporte  son experience, de laboratoire et chirurgicale depuis
15  ans,  d'utilisation  d' implants  mammaires  preremplis d'un gel  de
 carboxy   - methyl  -cellulose  (CMC) mis au point en 1984. II donne les
examens de laboratoire et leurs resultats...
... analyse  clinique  retrospective  portant  sur  380 cas depuis 1984. Il
conclut  sur  l'avenir  des  implants  mammaires  conditionne  par  la
fabrication d'enveloppes de plus en plus fiables contenant un gel...
English Descriptors: Implant ; Mammary gland; Filling; Hydrogel; Physical
  gel; Aesthetic surgery; Biomaterial; Biodegradability; Biocompatibility;
  Reliability; Tolerance; Complication; Leak; Subcutaneous administration;
  Intravenous administration; Siloxane polymer ; Infection; Shell; Adult;
  Female; Experimental study; Animal; Rabbit; Injection

17/6,K/4     (Item 2 from file: 73)
DIALOG(R)File  73:(c) 2001 Elsevier Science B.V. All rts. reserv.
01395623     EMBASE No: 1979116395
 Identification of the platelet activating activity in rheumatoid synovial
fluid as an intermediate molecular weight complex of IgG
  1979
  ...was purified from the synovial fluid of patients with rheumatoid
arthritis. Cation exchange chromatography on carboxymethyl  cellulose ,
gel  filtration on Sepharose 6B and preparative isoelectric focusing
yielded a single factor with an apparent...
```

...although coupled to serotonin secretion, was not associated with the release of the cytoplasmic marker lactic acid dehydrogenase or with platelet aggregation. Ouchterlony analysis of SF-PAA revealed a line of complete...
SECTION HEADINGS:
026 Immunology, Serology and Transplantation
031 Arthritis and Rheumatism
025 Hematology

17/7/1 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

05977933 88257486 PMID: 3164321
Bone and soft connective tissue response to porous acrylic implants. A histokinetic study.
van Mullem PJ; de Wijn JR
Dept. of Oral Histology, Dental School, University of Nijmegen, The Netherlands.
Journal of cranio-maxillo-facial surgery (GERMANY, WEST) Apr 1988, 16 (3) p99-109, ISSN 1010-5182 Journal Code: HTD
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
The ingrowth kinetics of soft and hard tissues near pre-polymerized and in-situ-polymerized large pore, in-situ-polymerized small pore and solid acrylic implants were investigated. Empty cavities served as controls. Aqueous sodium carboxymethyl cellulose (CMC) gel was dispersed in bone cement to create interconnected porosity. After periods of insertion from 2 days up to 26 weeks in frontal and parietal bones in pigs, tissue blocks containing implants were embedded in JB4 and studied by light microscopy. After the disappearance of the CMC-gel, at first only cells invaded the large pore implants but necrotized when at some distance from the implant surface. Later, when blood vessels grew into the pores, accompanying vital fibrous connective tissue was observed. Finally, all pores were filled with connective tissue. Surrounding bone was first resorbed, starting at day 7, creating a Soft tissue interface. A zone of bone deposition, starting deep in the remaining bone at day 2, moved towards the implant, thereby bridging the soft tissue interface. At 6 weeks bone grew into the pores, thus anchoring the implant. Continuing deposition of bone around the implant provided a so-called lamina dura effect with all implants. Qualitatively similar tissue kinetics were observed around solid and pre-polymerized large pore implants, evidently in the case of solid implants without tissue ingrowth. Into the small pore implants only superficial soft or hard tissue ingrowth was seen because of the too small interconnections.

17/7/3 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE

05948256 EMBASE No: 1994367377
Late degradation simulation of poly(l-lactide)
Rozema F.R.; Bergsma J.E.; Bos R.R.M.; Boering G.; Nijenhuis A.J.; Pennings A.J.; De Bruijn W.C.
Oral and Maxillofacial Surgery, University Hospital Groningen,Gronigen Netherlands
Journal of Materials Science: Materials in Medicine (J. MATER. SCI. MATER. MED.) (United Kingdom) 1994, 5/9-10 (575-581)
CODEN: JSMME ISSN: 0957-4530
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
High molecular weight as-polymerized poly(l-lactide) (PLLA) has been successfully used for fracture fixation and orbital floor reconstruction in animals and humans. As this PLLA takes more than 3 years to resorb, a method was developed to obtain insight into the final cellular degradation

process of the PLLA by means of short-lasting animal experiments. Pre-degraded PLLA particles (< 500 mum) were implanted subcutaneously in the backs of 14 rats. Two different methods of sterilization (regular steamsterilization and gamma-irradiation) and implantation vehicles (gelatin capsules and hydroxypropyl-methylcellulose (HPMC)) were used to examine the biological behaviour of the pre-degraded PLLA. Two rats were sacrificed at 48 h, 3 days and 1, 2, 4, 8, 16 weeks following the operation. The tissues were examined using light microscopy and transmission electron microscopy. Gel permeation chromatography (GPC) and differential scanning calorimetry (DSC) were used to characterize the PLLA material. GPC measurements of the pre-degraded PLLA revealed a M-(n) of 5500. Upon hydrolysation the crystallinity of the PLLA increased by about 60% and the heat of fusion was 86 J gsup -sup 1. Deterioration of the mechanical and physical properties due to the two sterilization methods was negligible. No differences in cellular response were observed between the densely packed PLLA particles (gelatin capsules) and the particles scattered over the tissue (HPMC-gel). The present study enabled an early observation of the late degradation phase of PLLA

19/6,K/3 (Item 1 from file: 73)
DIALOG(R)File 73:(c) 2001 Elsevier Science B.V. All rts. reserv.
11115173 EMBASE No: 2001135768
Release characteristics of microspheres prepared by co-spray drying Actinobacillus pleuropneumoniae antigens and aqueous ethyl-cellulose dispersion
2001
DRUG DESCRIPTORS:
...protein--endogenous compound--ec; immunoglobulin G--endogenous compound --ec; immunoglobulin A--endogenous compound--ec; water; polymer ; latex; lactose; sugar; polysaccharide; hydroxypropylmethylcellulose acetate succinate; nicotinamide adenine dinucleotide; bovine serum albumin; phosphate; buffer; sodium chloride; magnesium stearate; phenylpropanolamine ...
MEDICAL DESCRIPTORS:
...vitro study; dissolution; pH measurement; drug release; microencapsulation; scanning electron microscopy; surface property; porosity; polyacrylamide gel electrophoresis; chemical composition; chemical analysis; protein analysis; drug formulation; acidification; antibody blood level; intestine mucosa...
...CAS REGISTRY NO.: 64044-51-5 (lactose); 71138-97-1 (hydroxypropylmethylcellulose acetate succinate); 53-84-9 (nicotinamide adenine dinucleotide); 14066-19-4...
SECTION HEADINGS:
004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
026 Immunology, Serology and Transplantation
027 Biophysics, Bioengineering and Medical Instrumentation
030 Clinical and Experimental Pharmacology
037 Drug Literature Index...

19/6,K/4 (Item 2 from file: 73)
DIALOG(R)File 73:(c) 2001 Elsevier Science B.V. All rts. reserv.
10950134 EMBASE No: 2000437383
Assessment of various topical oral formulations by bone marrow transplant recipients
2001
...complications. The acceptability of topical therapies in cancer patients has not been evaluated. Thirty-eight transplant patients assessed the acceptability of three formulations (rinse, thin gel , thick gel) of a new compound developed to prevent oral mucositis. The rinse was selected as the most acceptable formulation. The thick gel received the lowest rating. Consistency was a major determinant of overall acceptability. A neutral taste...
...rated as completely acceptable. Most participants would be willing to

use the rinse or thin gel several times per day, to retain each dose in the oral cavity for up to...
DRUG DESCRIPTORS:
*placebo--pharmaceutics--pr; *placebo--drug therapy--dt; *placebo--drug comparison--cm; *hydroxypropylmethylcellulose --pharmaceutics--pr; * hydroxypropylmethylcellulose --drug dose--do; * hydroxypropylmethylcellulose --drug combination--cb
...cb; sorbitol--pharmaceutics--pr; sorbitol--drug combination--cb; xylitol --pharmaceutics--pr; xylitol--drug combination--cb; lactic acid --pharmaceutics--pr; lactic acid --drug combination--cb; methyl paraben --pharmaceutics--pr; methyl paraben--drug combination--cb; propyl paraben --pharmaceutics...
MEDICAL DESCRIPTORS:
topical drug administration; bone marrow transplantation ; taste; drug screening; drug formulation; patient compliance; interview; chemotherapy; viscosity; gel ; human; male; female; clinical article; controlled study; adult; clinical trial; multicenter study; article; priority journal
CAS REGISTRY NO.: 9004-65-3 (hydroxypropylmethylcellulose); 50-99-7...
...84778-64-3 (glucose); 50-70-4 (SORBITOL); 87-99-0 (xylitol); 50-21-5 (LACTIC ACID); 99-76-3 (methyl paraben); 94-13-3 (propyl paraben)

19/7/1 (Item 1 from file: 144)
DIALOG(R)File 144:Pascal
(c) 2001 INIST/CNRS. All rts. reserv.
11875520 PASCAL No.: 95-0039853
Reproductive and development toxicity studies of silicone gel Q7-2159A in rats and rabbits
SIDDIQUI W H; SCHARDEIN J L; CASSIDY S L; MEEKS R G
Dow Corming Corp., toxicology lab., Midland MI 48686-0994, USA
Journal: Fundamental and applied toxicology, 1994, 23 (3) 370-376
ISSN: 0272-0590 CODEN: FAATDF Availability: INIST-19134; 354000042493720060
No. of Refs.: 8 ref.
Document Type: P (Serial) ; A (Analytic)
Country of Publication: USA
Language: English
Studies reported here assessed the potential adverse effects of silicone gel , flow Corning Q7-2159A, on general reproduction and fetal development in male and female Charles River CD rats and New Zealand white rabbits. Two control and three treatment groups of 30 male and 30 female rats and 25 female rabbits per group were used in the one-generation reproduction and developmental toxicity studies, respectively. The silicone gel was implanted subcutaneously in two flank sites at dosage levels of 3, 10, and 30 ml/kg. The highest dose was selected on the basis of likely human body burden. Control groups received either sterile saline or carboxymethylcellulose solution in two flank implantation sites

19/7/2 (Item 2 from file: 144)
DIALOG(R)File 144:Pascal
(c) 2001 INIST/CNRS. All rts. reserv.
02910058 PASCAL No.: 80-0311683
CHEMICALLY MODIFIED NATURAL POLYMERS AS BIOMATERIALS. I: POLYSACCHARIDE- GELATIN CONJUGATES
RAGHUNATH K; PANDURANGA RAO K; JOSEPH K T
CENT. LEATHER RES. INST. ADYAR,MADRAS 600020,INDIA
Journal: POLYM. BULL., 1980, 2 (7) 477-483
Availability: CNRS-17946
No. of Refs.: 6 REF.
Document Type: P (SERIAL) ; A (ANALYTIC)
Country of Publication: FEDERAL REPUBLIC OF GERMANY
Language: ENGLISH
DES BIOPOLYMERES NATURELS TELS QUE, LA CARBOXYMETHYLCELLULOSE ET L'ACIDE ALGINIQUE QUI CONTIENNENT DES GROUPES FONCTIONNELS CARBOXYLES SONT

CONVERTIS EN AZIDES CORRESPONDANTS. CES AZIDES SONT ENSUITE GREFFES PAR COUPLAGE AVEC LES GROUPES EPSILON -AMINO DE LA GELATINE

19/7/5 (Item 3 from file: 73)
DIALOG(R)File 73:EMBASE

07141591 EMBASE No: 1998030961
Purification of polymers used for fabrication of an immunoisolation barrier
Prokop A.; Wang T.G.
A. Prokop, Department of Chemical Engineering, School of Engineering, Vanderbilt University, Nashville, TN 37232 United States
Annals of the New York Academy of Sciences (ANN. NEW YORK ACAD. SCI.) (United States) 31 DEC 1997, 831/- (223-231)
CODEN: ANYAA ISSN: 0077-8923
DOCUMENT TYPE: Journal; Conference Paper
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 18
A multistep extraction procedure has been tested for purification of natural and semi-synthetic polymers used for fabrication of an immunoisolation barrier for implanting animal cells. This procedure, originally described by Klock et al. for alginates, has been adapted for other gelling polymers to remove pyrogens (endotoxins) and mitogens. Several other steps have also been tested, resulting in a new and simple procedure for polymer purification, giving satisfactory levels of contamination. Endotoxin levels have been quantified by means of chromogenic and gel -clot LAL methods. A simple calculation of the endotoxin permissible levels shows that the quality of purified polymers exceeds FDA specifications for implantable polymers .

19/7/6 (Item 4 from file: 73)
DIALOG(R)File 73:EMBASE

06582943 EMBASE No: 1996247559
Development of alternative breast implant filler material: Criteria and horizons
Rohrich R.J.; Beran S.J.; Ingram A.E. Jr.; Young V.L.; Brody G.S.
Texas University SW Medical Center, 5323 Harry Hines Blvd.,Dallas, TX 75235-9132 United States
Plastic and Reconstructive Surgery (PLAST. RECONSTR. SURG.) (United States) 1996, 98/3 (553-562)
CODEN: PRSUA ISSN: 0032-1052
DOCUMENT TYPE: Journal; Review
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
The introduction of the silicone gel -filled breast implant more than 30 years ago changed the nature of alloplastic breast augmentation and reconstruction. Over the last three decades, it is estimated that one million American women have undergone implantation with some variation of these devices. Recent medical, legal, and regulatory developments have forced a moratorium on the unrestricted uses of the silicone gel -filled implants , and it appears unlikely that its general use will return. However, there is a continued need for some type of breast implant in both aesthetic and reconstructive surgery. The Food and Drug Administration has proposed testing guidelines for the development of any new breast implant before unrestricted clinical use. These guidelines will direct the creation of new tiller materials from their earliest stages, through long-term postimplantation follow-up studies. This article succinctly examines the central issues in the breast implant controversy in relation to the FDA's recommendations for the development of new implants , discusses breast implant tiller materials currently under development, and offers guidelines tot the development of breast implant fillers that are safe and effective.

19/7/7 (Item 5 from file: 73)
DIALOG(R)File 73:EMBASE

05630425 EMBASE No: 1994040271
Heparin, sulfated heparinoids, and lipoteichoic acids bind to the 70-kDa peptidoglycan/lipopolysaccharide receptor protein on lymphocytes
Dziarski R.; Gupta D.
Northwest Ctr. for Medical Education, Indiana Univ. School of Medicine,Gary, IN 46408 United States
Journal of Biological Chemistry (J. BIOL. CHEM.) (United States) 1994, 269/3 (2100-2110)
CODEN: JBCHA ISSN: 0021-9258
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
The same 70-kDa protein, present on the surface of mouse lymphocytes, served as the predominant binding site for heparin, heparinoids, and bacterial lipoteichoic acids, as well as peptidoglycan and lipopolysaccharides. This conclusion was supported by the following results: (a) all of these compounds photoaffinity cross-linked to one major 70-kDa 6.5-7.0 pI protein that co-migrated on two-dimensional polyacrylamide gel electrophoresis; (b) peptide maps of the 70-kDa proteins digested with chymotrypsin, subtilisin, protease V, or papain yielded the same peptides for heparin-, lipoteichoic acid-, peptidoglycan-, and lipopolysaccharide-binding proteins; (c) cross-linking of peptidoglycan, lipopolysaccharide, lipoteichoic acid, and heparin was competitively inhibited by the same compounds with the same order of potency, i.e. carboxyl-reduced sulfated heparin > peptidoglycan > pentosan polysulfate > heparin > chitin > dextran sulfate > trestatin sulfate > polyanetholesulfonate > fucoidan>beta- cyclodextrin tetradecasulfate > heparan sulfate > carrageenan lambda > lipoteichoic acids > Re-lipopolysaccharide > lipopolysaccharide > lipid A > polygalacturonic acid; and (d) cross-linking of each of these ligands was not inhibited by carboxyl-reduced heparin, dextran, beta-cyclodextrin, trestatin, carrageenan kappa, chondroitin 4-sulfate, chondroitin 6-sulfate, beta-D-glucan, carboxy-methylcellulose, levan, alpha-D-mannan, and glycogen. The minimum size of the molecule that bound was 7-9 glycan residues, whereas, di- and trisaccharides did not bind. There was a logarithmic linear relationship between the strength of the binding and the length of the polymer (up to > 1500 glycan residues), which indicates an avidity effect of the cooperative binding of one polymeric molecule to several receptor molecules on the cell surface. The 70-kDa receptor, therefore, has a broad, but limited specificity of binding for non-charged (peptidoglycan and chitin), highly negatively charged (heparin and heparinoids), and weakly negatively charged (lipoteichoic acids, lipopolysaccharides, and lipid A) ligands.

19/7/8 (Item 1 from file: 94)
DIALOG(R)File 94:JICST-EPlus

01686676 JICST ACCESSION NUMBER: 92A0838810 FILE SEGMENT: JICST-E
Gelation of aqueous solutions of methylcellulose derivative for ophthalmic use I.
KASAHARA ATSUHIRO (1); SAKANISHI AKIO (1); TOBASHI TOSHIAKI (1); MOMOSE AKIRA (2)
(1) Gunma Univ., Faculty of Technology; (2) Inst. of Clinical Ophthalmology
Nippon Baioreoroji Gakkaishi(B&R) (Journal of Japanese Society of Biorheology), 1992, VOL.6,NO.3, PAGE.124-127, FIG.4, REF.7
JOURNAL NUMBER: L0147AAD ISSN NO: 0913-4778
UNIVERSAL DECIMAL CLASSIFICATION: 615.456/.457
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Short Communication
MEDIA TYPE: Printed Publication

ABSTRACT: Hydroxypropylmethylcellulose (HPMC) saline solution at the weight concentration of ca. 2% is one of media used as space filler for an anterior chamber in the recent ophthalmic viscosurgery of cataract extraction and intraocular lens implantation . As there are many insoluble particles in crude solutions of HPMC, we should filtrate the solution for medical use. Viscosity .ETA. and optical absorbance A540 of a filtrated HPMC solution were measured with the concentration of 1% at the heating and colling rates .THETA.v=0.25, 0.40 and 0.70.DEG.C./min. Remarkable hysteresis curves were observed for .ETA. and A540 as gelating above ca. 55.DEG.C., depending on .THETA.v. In HPMC solution at 2% .ETA. was dependent on the shear rate with two rotational viscometers at .THETA.v=0.70.DEG.C./min. (author abst.)

19/7/9 (Item 2 from file: 94)
DIALOG(R)File 94:JICST-EPlus
(c)2001 Japan Science and Tech Corp(JST). All rts. reserv.
01676902 JICST ACCESSION NUMBER: 93A0042680 FILE SEGMENT: JICST-E
Gelation of Methylcellulose Derivative Solutions in Ophthalmic Use I.
KASAHARA A (1); SAKANISHI A (1); DOBASHI T (1); MOMOSE A (2)
(1) Gunma Univ., Gunma; (2) Inst. Clinical Ophthalmology, Gunma
Rep Prog Polym Phys Jpn, 1992, VOL.35, PAGE.77-78, FIG.4, REF.5
JOURNAL NUMBER: F0113AAS ISSN NO: 0486-4476
UNIVERSAL DECIMAL CLASSIFICATION: 544.232-14.03
LANGUAGE: English COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Original paper
MEDIA TYPE: Printed Publication

File 155:MEDLINE(R) 1966-2001/Jun W1
File 144:Pascal 1973-2001/Jun W1
File 5:Biosis Previews(R) 1969-2001/May W4
File 6:NTIS 1964-2001/Jun W3
File 8:Ei Compendex(R) 1970-2001/May W4
File 65:Inside Conferences 1993-2001/May W4
File 77:Conference Papers Index 1973-2001/May
File 73:EMBASE 1974-2001/May W4
File 34:SciSearch(R) Cited Ref Sci 1990-2001/Jun W1
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
File 94:JICST-EPlus 1985-2001/May W1
File 35:Dissertation Abstracts Online 1861-2001/Jun

Set	Items	Description
S1	13033	POLYLACTI? OR POLYGLYCOL?
S2	22588	PLA OR PGA OR PLGA
S3	90046	LACTIC()ACID OR GLYCOLIC()ACID
S4	1258114	POLYMER? ? OR HOMOPOLYMER? ?
S5	4958	POLY(2W)LACTIC()ACID
S6	2420116	IMPLANT? OR TRANSPLANT? OR PROSTHE?
S7	16528	CMC OR PHMC
S8	494	CARBOXY()METHYL()CELLULOSE
S9	5695	CARBOXYMETHYL()CELLULOSE
S10	8974	CARBOXYMETHYLCELLULOSE
S11	69	HYDROXY()PROPYL()METHYL()CELLULOSE
S12	388	HYDROXYPROPYL()METHYL()CELLULOSE
S13	500	HYDROXYPROPYLMETHYL()CELLULOSE
S14	3306	HYDROXYPROPYLMETHYLCELLULOSE
S15	1089288	GEL OR GELS OR GELLING OR GELAT?
S16	2986	HPMC
S17	10	(S1 OR S2 OR S3()S4 OR S5) AND S16
S18	31351	S7:S14
S19	7	S17 NOT S18
S20	**1**	**S19 AND S6 AND S15**
S21	2	S19 AND (S6 OR S15)

S22 1 S21 NOT S20

20/6/1 (Item 1 from file: 34)
03635959 Genuine Article#: PU255 Number of References: 50
Title: LATE DEGRADATION SIMULATION OF POLY(L-LACTIDE) (Abstract Available)

22/7/1 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

05308809 89375670 PMID: 2775878
Tumoricidal effect of controlled-release polymeric needle devices containing adriamycin HCl in tumor-bearing mice.
Lin SY; Cheng LF; Lui WY; Chen CF; Han SH
Department of Medical Research, Veterans General Hospital, Taipei, Taiwan, Republic of China.
Biomaterials, artificial cells, and artificial organs (UNITED STATES) 1989, 17 (2) p189-203, ISSN 0890-5533 Journal Code: BAC
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Controlled-release polymeric needle devices containing adriamycin HCL (ADH) were investigated by an in vitro dissolution study in normal saline solution and an in vivo antitumor activity in C3H mice bearing mammary carcinoma and nude mice bearing brain tumor. HPMC was used as a release rate regulator. The ADH released from needle devices was controlled by the types of polymer used and the addition of HPMC . EVA needle devices exhibit a zero order release behavior better than that of PLA needle devices. Tumor growth was markedly inhibited by treatment with needle devices after locally inserted into the solid tumor. The rank of antitumor activity of the needle devices is EVA greater than PLA greater than EVA-HPMC greater than PLA -HPMC . No significant changes in body weight of mice after treatment were found in treated groups as compared to controlled groups. The preliminary results of our study suggest that needle device dosage form shows a controlled release behavior and may be applicable as a drug carrier for delivery of antitumor drug in cancer chemotherapy.

File 9:Business & Industry(R) Jul/1994-2001/Jun 01
File 16:Gale Group PROMT(R) 1990-2001/Jun 01
File 160:Gale Group PROMT(R) 1972-1989
File 148:Gale Group Trade & Industry DB 1976-2001/Jun 01
File 621:Gale Group New Prod.Annou.(R) 1985-2001/Jun 01
File 636:Gale Group Newsletter DB(TM) 1987-2001/Jun 01
File 441:ESPICOM Pharm&Med DEVICE NEWS 2001/Apr W4
File 15:ABI/Inform(R) 1971-2001/Jun 04
File 88:Gale Group Business A.R.T.S. 1976-2001/Jun 04
File 98:General Sci Abs/Full-Text 1984-2001/Apr
File 99:Wilson Appl. Sci & Tech Abs 1983-2001/Apr
File 813:PR Newswire 1987-1999/Apr 30
File 20:World Reporter 1997-2001/Jun 04

Set	Items	Description
S1	1944	POLYLACTI? OR POLYGLYCOL?
S2	54168	PLA OR PGA OR PLGA
S3	8526	LACTIC()ACID OR GLYCOLIC()ACID
S4	256427	POLYMER? ? OR HOMOPOLYMER? ?
S5	232	POLY(2W)LACTIC()ACID
S6	254914	IMPLANT? OR TRANSPLANT? OR PROSTHE?
S7	19128	CMC OR PHMC
S8	116	CARBOXY()METHYL()CELLULOSE
S9	644	CARBOXYMETHYL()CELLULOSE
S10	682	CARBOXYMETHYLCELLULOSE
S11	19	HYDROXY()PROPYL()METHYL()CELLULOSE
S12	51	HYDROXYPROPYL()METHYL()CELLULOSE

```
S13         45   HYDROXYPROPYLMETHYL()CELLULOSE
S14         80   HYDROXYPROPYLMETHYLCELLULOSE
S15     134220   GEL OR GELS OR GELLING OR GELAT?
S16      55794   S1 OR S2 OR S3()S4 OR S5
S17          0   S16 AND S7:S14(10N)S15 AND S7:S14(S)S15 AND S6
S18          5   S16 AND S7:S14 AND S6
S19          4   S18 AND S15
S20          3   RD (unique items)

20/6,K/2      (Item 1 from file: 148)
DIALOG(R)File 148:(c)2001 The Gale Group. All rts. reserv.
04889222      SUPPLIER NUMBER: 09302162     (USE FORMAT 7 OR 9 FOR FULL TEXT)
Polymers - cosmetic and pharmaceutical applications: American Chemical
 Society International Symposium.
Nov, 1990
WORD COUNT:    5186     LINE COUNT:  00454
...      to increase retention on the skin were discussed. In product
formulation, polymers used to create gels , sticks, creams and to
stabilize emulsions; and in aerosol, products to stabilize particles, to
build...
...the Far East as a traditional food, and especially in the preparation of
heat stable gels . Konjac flour consists of fine oval sacs which swell in
contact with water and rupture...
...and the formation of strong films with skinlike textures.
      Carrageenan functionality was reviewed, including hydration,
gelation , protein reactivity, compatibility of carrageenan with other gums
and materials, the interaction of carrageenans with...
...Kappa carrageenan contains one sulfonic acid group per sugar molecule
and is characterized by strong gelling  action. The lambda carrageenan
contains two sulfonic acid groups per sugar molecule and can build
viscosity in systems but does not form gels . The lota carrageenan is
useful where weak gels  are required, such as in salad dressings and
dentrifrices.
      Konjac flour is useful for water thickening, formation of thermally
stable gels , film formation and synergism with kappa carrageenan. It also
forms synergistic mixtures with locust bean gum forming high strength gels
 which are stable over a wide pH range that can be plasticized with  ...in
personal care products. Also discussed was a new class of cellulose ether
polymeric surfactant, hydroxypropyl  methyl  cellulose  derivatives,
that markedly improve the foaming properties of shampoos, bubble baths,
facial cleansers and liquid...
...lather density and texture, emulsification, and viscosity building. The
important and unique mechanism of interfacial gelation  was described as
the underlying basis for this performance. Although these cellulose ethers
are high...
...Transport Laboratory, Washington University, St. Louis, reported on
microcapsules formed by the complex coacervation of gelatin  or in situ
polymerization of urea and formaldehyde for use in cosmetic formulations.
Thics compared...
...of the microcapsules they produce. Both technologies can encapsulate
many oils used in cosmetic formulations. Gelatin -based capsules are
fabricated from preformed water soluble polymers such as gum arabic,
carrageenan, sodium...
...and impart improved glide on the skin. These materials are compatible
with cyclomethicones, and can gel  paraffinic oils and fatty esters.
Silicone surfactants are structurally derived from polydimethyl siloxanes
by replacing...from the site of administration due to a chemical reaction
such as hydrolysis, e.g., polylactic  acid (PLA ), polyglycolic  acid (
PGA ), polycaprolactone (PCL), polyhydroxbutyrate (PHB), polyaminoacids,
labile polyesters, and several generic classes such as polyorthoesters and
polyanhydrides; and (4) water soluble polymer such as cellulose acetate
phthallate (CAP), hydroxypropyl  methyl  cellulose  (HPMC), hydroxyethyl
cellulose (HEC), and carboxymethylcellulose  (CMC ).
```

Dr. Thombre concluded that systems for rate-controlled administration represent an elegant application of physical...
...with water form viscoelastic phases which, when crosslinked, result in soft, compliant, elastomer matrices. As implants , they are biodegradable leading to release of products natural to the body. As such, these...

20/6,K/3 (Item 1 from file: 88)
DIALOG(R)File 88:(c) 2001 The Gale Group. All rts. reserv.
03453632 SUPPLIER NUMBER: 14968286 (USE FORMAT 7 OR 9 FOR FULL TEXT)
New challenges in biomaterials.
March 25, 1994
WORD COUNT: 5359 LINE COUNT: 00464
TEXT:

see bibliographic citation for this on p. 31

...role in extracorporeal devices, from contact lenses to kidney dialyzers, and are essential components of implants , from vascular grafts to cardiac pacemakers (1). There are many current biomaterials applications (Table 1...

Table 1. Examples of biomaterials applications.

Cardiovascular implants	Hearts and valves
	Vascular grafts
	Pacemakers
	Stents
Plastic and reconstructive implants	Breast augmentation or reconstruction
	Maxillofacial reconstruction
	Penile implant
Orthopedic prostheses	Knee joint
	Hip joint
	Fracture fixation
Opthalmic systems	Contact lenses
	Intraocular lenses
Dental implants	
Neural implants	Hydrocephalus shunt
	Cochlear implant
Extracorporeal	Oxygenators
	Dialyzers
	Plasmapheresis
Catheters	
Devices for controlled drug delivery	Coatings for tablets or capsules
	Transdermal systems
	Microcapsules
	Implants
General surgery	Sutures
	Staples
	Adhesives
	Blood substitutes
Diagnostics	

Synthetic Approaches to New Biomaterials

The development...Optical methods that use second-harmonic generation may be useful in characterizing the interfaces between gels and liquids (24).

Classical surface analysis techniques such as x-ray photoelectron spectroscopy (XPS), static...
...in vivo tests may also be useful in an examination of biocompatibility. One test involves implanting a biomaterial in the rabbit corneal pocket. Because of the eye's sensitivity to inflammation...
...in vivo cellular reaction to a biomaterial is the "cage method" (31). By surrounding an implant with an artificial cage, samples of fluid can be removed and specific inflammatory cells can...
...brain, (ii) biocompatibility of high levels (up to 100 times the anticipated dose) of polymer implanted subcutaneously in rats, (iii)

polymer biocompatibility in the monkey brain, (iv) autoradiography of drug released...
...compounds for potential cosmetic or dermatologic applications.

Opportunities in Biomaterials Development

Soft tissue replacement. Biomaterials implanted into vascularized tissue exhibit foreign body reactions, inflammation, and a healing response. New areas of...
...that require compliance with soft or cardiovascular tissue. The materials may be needed for permanent implantation (artificial hearts, mammary prostheses , pacemaker lead insulators, and vascular grafts) or temporary use (semiocclusive dressings). The combination of biocompatibility...
...replacement are being developed that use benign processing methods. For example, uncross-linked, physically reinforced gels of poly(vinyl alcohol) have been tested as biomaterials (36). There is a trend toward blood oxygenators) and implantable devices (for example, vascular grafts), they sometimes cause damage to the blood's cellular components...
...silicones and acrylates are being developed. Mucoadhesive materials are usually based on poly(acrylic acid), carboxymethyl cellulose , and other polymers that induce hydrogen bonding (48). An alternative method of design is based...
...because of the difference in mechanical properties between metal and bone, the bone around the implant may become weak (49). Furthermore, implanted metals frequently do not adhere well to bone and often induce a fibrous capsule around the implant , leading to impaired function of the repaired site (50).

Degradable polymers may be useful in...
...applications because they circumvent the problems of a persistent foreign body and the need for implant retrieval. The materials should be sufficiently strong to withstand the stresses to which bones are...
...minimal bone morbidity. However, most degradable polymers are too weak to be used in loadbearing implants .

One approach to address this issue has been the design of self-reinforced composites in which cylindrical fibers of polyglycolic acid (PGA) are embedded within a PGA matrix (51). Such materials have been tested on over 20,000 patients and are sometimes...
...time dependence are critical to the molecular design of such ceramics. For non--load-bearing prostheses , such as might be used in the middle ear or maxillofacial repair, bonding to both hard and soft tissues is required and highly bioactive implants are needed (55). However, for load-bearing tissues such as those needed for vertebral repair, implants with higher interfacial shear strength and lower bioactivity are preferable.

Medical devices composed of orthopedic...
...This may allow on-site (in hospital) and on-demand (overnight) production of even complex implants from preshaped parts (56).

Dental materials. Important challenges are faced in developing dental biomaterials, including...might be administered through a minimally invasive surgical device and then triggered to solidify or gel in the presence of ultraviolet light, visible light, or ionic change in vivo. This type...Peppas, Eds. (Wissenschafhiche, Stuttgart, Germany, 1993), pp. 41-56. (21.) A. S. Hoffman, in Polymer Gels , D. De Rossi. K. Kajiwara, Y. Osada, A. Yamauchi, Eds. (Plenum, New York, 1991), pp...
...and S. R. Stauffer, J Controlled Release 16, 305 (1991); Y. Yamauchi, Ed., Organic Polymer Gels (Gokkai, Tokyo, 1990); B. J. Ficek and N. A. Peppas, J. Controlled Release 27, 259...

20/3,AB/2 (Item 1 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB

04889222 SUPPLIER NUMBER: 09302162 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Polymers - cosmetic and pharmaceutical applications: American Chemical Society International Symposium.
Fox, Charles

Cosmetics and Toiletries, v105, n11, p71(7)
Nov, 1990
ISSN: 0361-4387 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
WORD COUNT: 5186 LINE COUNT: 00454

20/3,AB/3 (Item 1 from file: 88)
DIALOG(R)File 88:Gale Group Business A.R.T.S.
(c) 2001 The Gale Group. All rts. reserv.
03453632 SUPPLIER NUMBER: 14968286 (USE FORMAT 7 OR 9 FOR FULL TEXT)
New challenges in biomaterials.
Peppas, Nicholas A.; Langer, Robert
Science, v263, n5154, p1715(6)
March 25, 1994
ISSN: 0036-8075 LANGUAGE: English RECORD TYPE: Fulltext; Abstract
WORD COUNT: 5359 LINE COUNT: 00464
AUTHOR ABSTRACT: Significant opportunities and challenges exist in the creation and characterization of biomaterials. Materials have been designed for contact with blood, as replacements for soft and hard tissues, as adhesives, and as dental materials. Current methods of synthesis and characterization of these materials are outlined. Approaches for controlling the interface between tissue and biomaterials and ways in which the engineered materials may contribute to medicine are considered.

File 9:Business & Industry(R) Jul/1994-2001/Jun 01
File 16:Gale Group PROMT(R) 1990-2001/Jun 01
File 160:Gale Group PROMT(R) 1972-1989
File 148:Gale Group Trade & Industry DB 1976-2001/Jun 01
File 621:Gale Group New Prod.Annou.(R) 1985-2001/Jun 01
File 636:Gale Group Newsletter DB(TM) 1987-2001/Jun 01
File 441:ESPICOM Pharm&Med DEVICE NEWS 2001/Apr W4
File 20:World Reporter 1997-2001/Jun 04
File 813:PR Newswire 1987-1999/Apr 30
File 15:ABI/Inform(R) 1971-2001/Jun 04
File 88:Gale Group Business A.R.T.S. 1976-2001/Jun 04
File 98:General Sci Abs/Full-Text 1984-2001/Apr
File 99:Wilson Appl. Sci & Tech Abs 1983-2001/Apr

Set	Items	Description
S1	1944	POLYLACTI? OR POLYGLYCOL?
S2	54168	PLA OR PGA OR PLGA
S3	8526	LACTIC()ACID OR GLYCOLIC()ACID
S4	256427	POLYMER? ? OR HOMOPOLYMER? ?
S5	232	POLY(2W)LACTIC()ACID
S6	254914	IMPLANT? OR TRANSPLANT? OR PROSTHE?
S7	19128	CMC OR PHMC
S8	116	CARBOXY()METHYL()CELLULOSE
S9	644	CARBOXYMETHYL()CELLULOSE
S10	682	CARBOXYMETHYLCELLULOSE
S11	19	HYDROXY()PROPYL()METHYL()CELLULOSE
S12	51	HYDROXYPROPYL()METHYL()CELLULOSE
S13	45	HYDROXYPROPYLMETHYL()CELLULOSE
S14	80	HYDROXYPROPYLMETHYLCELLULOSE
S15	134220	GEL OR GELS OR GELLING OR GELAT?
S16	206	HPMC
S17	55794	S1 OR S2 OR S3()S4 OR S5
S18	439	S17 AND S7:S14
S19	2	S17 AND S16
S20	**1**	**S19 NOT S18**

20/3,AB/1 (Item 1 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2001 The Gale Group. All rts. reserv.
04382723 Supplier Number: 46427377

FORMULATION FACTORS IN HYDROXYPROPYL METHYLCELLULOSE CONTROLLED RELEASE MATRICES

Pharmaceutical Manufacturing Review, pS2
June, 1996
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 1170

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     (FILE 'HOME' ENTERED AT 10:35:08 ON 04 JUN 2001)
     FILE 'REGISTRY' ENTERED AT 10:35:17 ON 04 JUN 2001
                E POLYLACTIDE/CN
L1            1 S E3
                E POLYLACTIC ACID/CN
                E POLYGLYCOLIDE/CN
L2            1 S E1
L3            2 S E3
                E POLY L LACTIC ACID/CN
                E POLY D LACTIC ACID/CN
                E CARBOXYMETHYLCELLULOSE/CN
                E HPMC/CN
L4            1 S E3
                E CMC/CN
L5            2 S E3
                E HYDROXYPROPYLMETHYLCELLULOSE/CN

     FILE 'BIOSIS, BIOTECHNO, BIOBUSINESS, HCAPLUS, EMBASE, MEDLINE, PROMT'
     ENTERED AT 11:31:36 ON 04 JUN 2001
L6         5565 S L1 OR L2 OR L3
L7        95464 SS MICROSPHERE? OR MICROPARTICLE? OR LATEX(2N)(BEAD OR BEADS OR
L8        95464 S MICROSPHERE? OR MICROPARTICLE? OR LATEX (2N) (BEAD OR BEADS O
L9         9695 S L7 (10N)L8
L10         226 S L6 (10N) L7
L11       31671 S L4 OR L5
L12     1258219 S GELAT? OR GEL OR GELS OR GELLING AGENT?
L13         865 S L11 (10N) L12
L14           0 S L10 AND L13
L15           8 S L6 AND L7 AND L11 AND L12
L16     1367245 S IMPLANT? OR PROSTHE? OR TRANSPLANT?
L17           1 S L15 AND L16
L18          19 S (L10 AND L16) OR (L13 AND L16)
L19          19 DUPLICATE REMOVE L18 (0 DUPLICATES REMOVED)
```

This is a duplicate of 7/7/1, page 1

L17 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1999:7870 HCAPLUS
DOCUMENT NUMBER: 130:71567
TITLE: ***Implant*** for subcutaneous or intradermal injection comprising polymers
INVENTOR(S): **Asius, Jerome**; Fessi, Hatem; Gouchet, Franck; Laglenne, Benedicte; Laugier-Laglenne, Elisabeth
PATENT ASSIGNEE(S): Biopharmex Holding S.A., Luxembourg
SOURCE: PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9856431	A1	19981217	WO 1998-FR1241	19980612
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
FR 2764514	A1	19981218	FR 1997-7334	19970613
FR 2764514	B1	19990903		

AU 9882182	A1	19981230	AU 1998-82182	19980612
BR 9804962	A	19990908	BR 1998-4962	19980612
EP 969883	A1	20000112	EP 1998-932196	19980612
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2000516839	T2	20001219	JP 1999-501805	19980612

PRIORITY APPLN. INFO.: **FR 1997-7334 A 19970613**
WO 1998-FR1241 W 19980612

AB An injection ***implant*** for filling up wrinkles, thin lines, skin cracks and scars, for reparative or plastic surgery, aesthetic dermatol., and for filling up gums in dental treatment is disclosed. The invention concerns the use of biol. absorbable polymer ***microspheres*** or ***microparticles*** suspended in a ***gel*** . Said suspension is produced either ready-for-use or freeze-dried. The biol. absorbability of the ***microspheres*** is controlled and enables the prodn. of ***implants*** having well defined persistence and deliberately limited to 3 yr. A soln. of 2 g **polylactide** in 20 mL Et acetate was dispersed in 100 mL of water contg. 5 g polyoxyethylene sorbitan monooleate. The dispersion was stirred until the solvent was evapd. and ***microspheres*** of 40 .mu.m were formed. The ***microspheres*** thus obtained were filtered, dried, and incorporated in a 0.5% **CM-cellulose** ***gel*** .

REFERENCE COUNT: 7
REFERENCE(S):
(1) Coletica; WO 9313755 A 1993 HCAPLUS
(2) Collagen Corp; EP 0251695 A 1988 HCAPLUS
(3) Debacker, Y; WO 9633751 A 1996 HCAPLUS
(5) Ethicon Inc; EP 0711548 A 1996 HCAPLUS
(6) Johnson & Johnson Medical; EP 0648480 A 1995 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 1 OF 19 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2000:113120 HCAPLUS
DOCUMENT NUMBER: 132:139036
TITLE: Preparation of reversibly water-swellable gel from polysaccharides, especially chitin
INVENTOR(S): Khor, Eugene; Wan, Andrew Chwee Aun; Hastings, Garth Winton
PATENT ASSIGNEE(S): National University of Singapore, Singapore
SOURCE: U.S., 6 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6025479	A	20000215	US 1997-899164	19970723

PRIORITY APPLN. INFO.: SG 1996-10364 A 19960724

AB A reversibly swellable polysaccharide gel is prepd. by dissolving a polysaccharide in N,N-dimethylacetamide to form a gel, dialyzing and solvent drying the gel, treating the dried gel with a soln. comprising .1toreq.50% NaOH or KOH, adding the treated gel to a soln. of chloroacetic acid in alc., sepg., washing, and acidifying, and drying the gel. The extent of swelling can be varied by suitably varying the chem. treatment. **The gels have potential use in immobilization of biol. mols., subdermal ***implant*** devices**, etc. (no data). Thus, **a chitin gel** was formed in a 95:5 DMAc-LiCl solvent system, dialyzed against deionized water, solvent dried with acetone, cut into strips which were activated in a 50% NaOH soln. overnight at -20.degree., added to a soln. of 5.4 g chloroacetic acid in 30 mL iso-PrOH simultaneously with 10 mL 50% NaOH -20.degree.,

stirred for 2 h, dialyzed for .gtoreq.1 h, immersed in 1 N HCl for 15 min, washing, solvent dried in acetone to give carboxymethyl chitin sodium salt, which swelled 400-800 vol.%, depending on thickness.

REFERENCE COUNT: 4

REFERENCE(S):
(1) Anon; US 4302252 1981 HCAPLUS
(2) Hirano; Biological Gels:The Gelation of Chitosan and Chitin 1991, P181 HCAPLUS
(3) Rutherford; The Permeability of Chitin Films to Water And Solutes 1984, P135 HCAPLUS
(4) Wan; Biomaterials 1996, V17(0), P1

L19 ANSWER 2 OF 19 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2000:822654 HCAPLUS
DOCUMENT NUMBER: 134:9355
TITLE: Use of biodegradable microspheres for the delivery of an anticancer agent for the treatment of glioblastoma
INVENTOR(S): Faisant, Nathalie; Benoit, Jean-Pierre; Menet, Philippe
PATENT ASSIGNEE(S): Laboratoires des Produits Ethiques Ethypharm, Fr.
SOURCE: Eur. Pat. Appl., 13 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1053746	A1	20001122	EP 2000-401344	20000517
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
FR 2793684	A1	20001124	FR 1999-6207	19990517
WO 2000069413	A1	20001123	WO 2000-FR1315	20000517
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: FR 1999-6207 A 19990517

AB Biodegradable microspheres comprising a polymer and an anticancer agents are used with radiotherapy for the treatment of glioblastoma. The microspheres increases the duration of patients survival by at least 90 wk and maintains a therapeutic concn. in the parenchymatous spaces. The microspheres are ***implanted*** by injection in the tumor tissues and the tumor is subjected to a dose of 60 Gy radiotherapy for about 6 wk. Microspheres of polyglycolide polylactide contg. 23% 5-fluorouracil with av. size of 48 .mu.m were prepd. The microspheres were suspended in a soln. contg. sodium CM-cellulose 1.25, Polysorbate 80 1, mannitol 4%, and water q.s. 3 mL. Efficacy of the microspheres combined with radiotherapy in increasing the survival rate of the patients suffering from cancer are shown.

REFERENCE COUNT: 3

REFERENCE(S):
(1) Nn; Proceedings 1997 of the 24th International Symposium on controlled release of bioactive materials 1997
(2) Painbeni, T; EUROPEAN JOURNAL OF PHARMACEUTICS AND BIOPHARMACEUTICS 1998, V45(1), P31 HCAPLUS
(3) RhOne Merieux; FR 2693905 A 1994 HCAPLUS

L19 ANSWER 3 OF 19 HCAPLUS COPYRIGHT 2001 ACS

KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

AU 9865528	A1	19980929	AU 1998-65528	19980312
EP 984797	A1	20000315	EP 1998-911607	19980312
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.: US 1997-816079 A 19970313
WO 1998-US4904 W 19980312

AB A bone paste useful in the orthopedic arts, for example in the repair of non-union fractures, periodontal ridge augmentation, craniofacial surgery, ***implant*** fixation, impaction grafting, or any other procedure in which generation of new bone is deemed necessary, is provided by a compn. comprising a substantially bioabsorbable osteogenic compd. in a gelatin matrix. In various embodiments, the osteogenic compd. is selected from (1) demineralized bone matrix (DBM); (2) bioactive glass ceramic, Bioglass, bioactive ceramic, calcium phosphate ceramic, hydroxyapatite, hydroxyapatite carbonate, corraline hydroxyapatite, calcined bone, tricalcium phosphate, or like material; (3) bone morphogenetic protein, TGF-.beta., PDGF, or mixts. thereof, natural or recombinant; and (4) mixts. of (1)-(3). The bone paste contains dry demineralized bone 0-40, lyophilized thermally crosslinkable gelatin 20-45, Bioglass 0-40%, and bone morphogenic protein 0.001 mg/mL. The bone paste was osteoinductive when ***implanted*** in rats.

L19 ANSWER 8 OF 19 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1997:384259 HCAPLUS
DOCUMENT NUMBER: 127:9126
TITLE: Preparation of peptide containing biodegradable microspheres by melt process
INVENTOR(S): Cha, Younsik; Choi, Young Kweon; Pai, Chaul Min
PATENT ASSIGNEE(S): Macromed, Inc., USA
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9715389	A1	19970501	WO 1996-US17237	19961025
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI				
US 5665428	A	19970909	US 1995-547962	19951025
CA 2235602	AA	19970501	CA 1996-2235602	19961025
AU 9674797	A1	19970515	AU 1996-74797	19961025
EP 857081	A1	19980812	EP 1996-937031	19961025
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 11515016	T2	19991221	JP 1996-516850	19961025

PRIORITY APPLN. INFO.: US 1995-547962 19951025
WO 1996-US17237 19961025

AB Peptide/protein biodegradable drug delivery devices are prepd. as microspheres without the use of solvents by a polymer melt process. A melt of thermostable polypeptides and an appropriate low melting block copolymer mixt. is prepd. and dispersed in an appropriate fluid medium

Hincal, A. A.
CORPORATE SOURCE: Department of Pharmaceutical Technology, Hacettepe University, Sihhiye-Ankara, 06100, Turk.
SOURCE: S.T.P. Pharma Sci. (1999), 9(5), 447-455
CODEN: STSSE5; ISSN: 1157-1489
PUBLISHER: Editions de Sante
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The purpose of the present work, which is focused on the loading of bromocryptine mesylate into biodegradable microspheres with the purpose of prolonging its therapeutic activity, is to study the biodegrdn. and tissue response after brain and hypophysis tissue ***implantation*** . For this purpose, surgery was performed under aseptic conditions. Sprague-Dawley rats were divided into three groups. The rats were anesthetized with i.p. injections of a ketamine hydrochloride (Ketalar)/xylazine hydrochloride (Romphun) mixt. They received either blank poly(L-lactides), poly(D,L-lactides) and poly(D,L-lactide-co-glycolide) microspheres or bromocryptine mesylate-loaded microspheres in the brain and hypophysis tissue by intracerebral ***implantation*** . The right hemisphere was used as a control and the left hemisphere was used as a sample. The rats were sacrificed with an overdose of anesthetic at 7 days, 14 days and 4 mo after the ***implantation*** . Histol. examns. were performed with light microscopy and transmission electron microscopy. Blank microspheres showed no inflammatory response or other adverse effects in the rat brain and hypophysis and completely biodegraded after 4 mo in vivo. No phys. signs of toxicity were shown by the animals receiving bromocryptine mesylate-loaded microspheres. The cellular response was characterized by the presence of fibroblast at day 7. At day 120, the cell reaction was the same as that at day 21. This work suggests that bromocryptine mesylate-loaded biodegradable microspheres is possibly safe to ***implant*** in the rat brain and hypophysis, and that these microspheres can be used in prolonging bromocryptine mesylate release.

REFERENCE COUNT: 31
REFERENCE(S):
(6) Benoit, J; Microencapsulation: Methods and Industrial Applications 1996, P35 HCAPLUS
(9) Bodmeier, R; Pharm Res 1987, V4, P465 HCAPLUS
(11) Brundin, P; Exp Brain Res 1988, V70, P192 HCAPLUS
(12) Cavalier, M; J Pharm Pharmacol 1986, V38, P249 HCAPLUS
(14) During, M; Ann Neurol 1989, V25, P351 HCAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 7 OF 19 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:624020 HCAPLUS
DOCUMENT NUMBER: 129:250241
TITLE: Bone paste comprising a bioabsorbable osteogenic compound in a gelatin matrix
INVENTOR(S): Wironen, John F.; Grooms, Jamie M.
PATENT ASSIGNEE(S): University of Florida Tissue Bank, Inc., USA; University of Florida Research Foundation, Inc.
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9840113	A1	19980917	WO 1998-US4904	19980312

W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, GW, HU, ID, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG,

such as air, water or an immiscible org. fluid without using any org. solvent to form microdroplets. The fluid medium is cooled to solidify the microdroplets into microspheres and then collected and purified or further processed as drug delivery devices. These biodegradable microspheres are suitable as ***implantable*** or injectable pharmaceutical formulations. Following administration as solid microspheres into the body of a warm blooded animal, the formulations absorb water from the body to form a hydrogel from which the polypeptide is released continuously over an extended period of time. .epsilon.-Caprolactone-PEG block copolymers were prepd. and bovine serum albumin was microencapsulated in the polymer.

L19 ANSWER 9 OF 19 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1997:116555 HCAPLUS
DOCUMENT NUMBER: 126:122487
TITLE: Apparatus and method for delivering a biologically active compound into a biological environment
INVENTOR(S): Ron, Eyal S.; Schiller, Matthew E.; Roos, Eric
PATENT ASSIGNEE(S): Gel Sciences, Inc., USA
SOURCE: PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9640082	A2	19961219	WO 1996-US9416	19960605
WO 9640082	A3	19970327		
W: AU, CA, CN, FI, JP, KR, MX, NO				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5651979	A	19970729	US 1995-473218	19950607
AU 9660992	A1	19961230	AU 1996-60992	19960605
EP 831792	A2	19980401	EP 1996-918302	19960605
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 11507343	T2	19990629	JP 1996-501738	19960605

PRIORITY APPLN. INFO.:
US 1995-473218 19950607
US 1995-413409 19950330
WO 1996-US9416 19960605

AB Systems for delivery of a biol. active substance into an environment. First and second chambers are sepd. by a moveable partition. The first chamber includes a polymer gel network which undergoes a vol. change in response to an environmental condition such as pH. The first compartment includes a screen or membrane for confining the polymer gel network while allowing communication with fluid in an environment. The second compartment contains a biol. active compd. or drug which is delivered to the environment through an orifice in the second compartment. Upon the occurrence of the triggering environmental condition, the polymer gel network undergoes a vol. change which moves the moveable partition expelling the drug through the orifice. Drug delivery is initiated and continues only when the appropriate environmental condition or trigger is met.

L19 ANSWER 10 OF 19 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1996:327848 HCAPLUS
DOCUMENT NUMBER: 125:67656
TITLE: Glutaraldehyde retains its disinfectant properties in presence of hydroxypropyl methyl cellulose (HPMC) gel
AUTHOR(S): Matchette, L. S.; Vegella, T. J.
CORPORATE SOURCE: Food, and Drug Administration, Center for Devices and Radiological Health, Rockville, MD, 20857, USA

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8600912	A1	19860213	WO 1985-SE282	19850716
W: JP, US				
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
SE 8403817	A	19860124	SE 1984-3817	19840723
SE 456346	B	19880926		
SE 456346	C	19890126		
CA 1263647	A1	19891205	CA 1985-486349	19850705
EP 190215	A1	19860813	EP 1985-903721	19850716
EP 190215	B1	19891018		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
AT 47400	E	19891115	AT 1985-903721	19850716
JP 06069490	B4	19940907	JP 1985-503288	19850716
US 4886787	A	19891212	US 1986-847171	19860123
PRIORITY APPLN. INFO.:			SE 1984-3817	19840723
			EP 1985-903721	19850716
			WO 1985-SE282	19850716

AB Adhesions or accretions of body tissues inter se are prevented by coating with a gel of crosslinked carboxyl-contg. polysaccharide, e.g. hyaluronic acid, prepd. by crosslinking with a di- or polyfunctional epoxide at pH 2-5, preferably 2.5-4.5. Preferable acids for this reaction are described. Thus, Na hyaluronate was crosslinked with 1,4-butanediol diglycidyl ether in the presence of glacial HOAc to form a gel with solids content 5.0% after 5 h reaction at 50.degree.. This gel was effective in the prevention of postoperative adhesions between tendon and tendon sheath in rabbits.

L19 ANSWER 16 OF 19 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1986:448990 HCAPLUS
DOCUMENT NUMBER: 105:48990
TITLE: **Evaluation of poly(lactic acid) as a biodegradable drug delivery system for parenteral administration**
AUTHOR(S): Smith, Alan; Hunneyball, Ian M.
CORPORATE SOURCE: Res. Dep., Boots Co. PLC, Nottingham, NG2 3AA, UK
SOURCE: Int. J. Pharm. (1986), 30(2-3), 215-20
CODEN: IJPHDE; ISSN: 0378-5173
DOCUMENT TYPE: Journal
LANGUAGE: English

AB **Poly(DL-lactide) (PLA) [***26680-10-4***] ***microspheres*** of 1-10 .mu.m diam. prepd. by emulsion deposition and contg. entrapped prednisolone [50-24-8] released the drug rapidly into an aq. medium. Similarly sized microparticles prepd. by a fusion process exhibited a more prolonged drug release profile and may have potential as a long-acting parenteral delivery system.** Both methods of fabricating the polymer produced material which was cytotoxic when phagocytosed by mouse peritoneal macrophages. The intracellular toxicity and hence potential irritancy in vivo was only partially overcome by incorporating an anti-inflammatory drug. **Compressed ***implants*** of the same polymers** contg. prednisolone 10% wt./wt. (100 mg.cntdot.cm-3) and weighing 12 mg were readily administered and sustained the delivery of the drug for over 30 days without complications at the ***implantation*** site.

L19 ANSWER 17 OF 19 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1978:94855 HCAPLUS
DOCUMENT NUMBER: 88:94855
TITLE: Cement and filler for dental ***prostheses***
INVENTOR(S): Rautiala, Yrjo Thorsten
PATENT ASSIGNEE(S): Finland
SOURCE: Finn., 5 pp.
CODEN: FIXXAP
DOCUMENT TYPE: Patent
LANGUAGE: Finnish

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FI 52808	B	19770831	FI 1976-964	19760408
FI 52808	C	19771212		

AB Dental compns. contg. powd. pectin [9000-69-5] 6, ***gelatin*** 6, Na CM-cellulose [***9004-32-4***] 6, plastic silicone rubber (I) without hardener 75, polyisobutylene [9003-27-4](II) 7 g and several drops of paraffin oil are prepd. By varying the proportions of I and II, the mixts. can be used either as cement or fillers for dental ***prostheses*** .

L19 ANSWER 18 OF 19 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1977:60563 HCAPLUS
DOCUMENT NUMBER: 86:60563
TITLE: **Mixture useful for anchoring ***implants*** in bones**
INVENTOR(S): De Wijn, Joost R.
PATENT ASSIGNEE(S): Sulzer, Gebr., A.-G., Switz.
SOURCE: Ger. Offen., 12 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2518153	A1	19761028	DE 1975-2518153	19750424
DE 2518153	C2	19840405		
AT 7503070	A	19761215	AT 1975-3070	19750422
AT 338429	B	19770825		
NL 7600778	A	19761020	NL 1976-778	19760126
NL 169821	C	19820901		
JP 51124095	A2	19761029	JP 1976-30693	19760319
JP 62051629	B4	19871030		
GB 1533283	A	19781122	GB 1976-15663	19760415
PRIORITY APPLN. INFO.:			CH 1975-4970	19750418

AB **A cement for bonding ***implants*** and joint endoprotheses to bone consists of a doughlike, water-insol. mass contg. .gtoreq.1 powd. polymer, a polymg., liq. monomer, and, if necessary, other powd. or liq. polymn. catalysts and (or) accelerators, x-ray contrast media and stabilizers dispersed in a biol. compatible, highly viscous gel sol. in H2O and biol. fluids.** In an example, the water-insol. mass was a com. bone cement contg. a powd. component consisting of 90 parts poly(methyl methacrylate) [9011-14-7], 10 parts ZrO2 (x-ray contrast agent), 2 parts Bz2O2 (polymn. catalyst) and a liq. component consisting of 85 parts Me methacrylate [80-62-6], 15 parts Bu methacrylate [97-88-1], and 2 parts N,N-dimethyl-p-toluidine (polymn. accelerator). **The CM-cellulose [***9004-32-4***] used for the ***gel***** had a degree of substitution of 1.18, a 0.5% aq. soln. had a pH of 6.8, and the viscosity of a 1% soln. at ambient temp. of 390 cP. In use, 20 parts of the powd. component of the water-insol. mass and 6 parts of the CM-cellulose powder were mixed, then the liq. component of the water-insol. mass was blended into the powder, and finally 14 parts H2O was added and mixed in. Hardening of the cement and gel formation take place simultaneously. The advantage is that instead of mixing 2 highly viscous components powders are mixed and then gelation and hardening occur.

L19 ANSWER 19 OF 19 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1972:142606 HCAPLUS

DOCUMENT NUMBER: 76:142606
TITLE: **Plastic or gel compositions**
INVENTOR(S): Etes, Donald E.
PATENT ASSIGNEE(S): Hollister Inc.
SOURCE: U.S., 7 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3640741	A	19720208	US 1970-13608	19700224

AB **Hydrophilic colloids, e.g. alginate gum or CM-cellulose [9000-11-7] gum were crosslinked with propylene glycol (I) [57-55-6] in I or glycerol (II) [56-81-5] preferably in the presence of 0.2-2 parts calcium carbonate [471-34-1], calcium chloride [10043-52-4], Na benzoate [532-32-1], benzoic acid [65-85-0], or aluminum hydroxide [21645-51-2] catalyst at pH 5-11 to attain a plastic consistency. The products were used as** slow medicinal release vehicles, ***prosthetics*** , adhesive bandages, and hand lotions. Thus, I and II were slurried with instant clear gel starch [9005-25-8], then Keltrol (a xanthin gum product polysaccharide) was added and the compn. was molded.

EAST Browser - L7: (35) 1 and (tween... | US 5[redacted]29 A | Tag: S | Doc: 18/35 (SORTED) | Format : KWIC

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	Document I	K	Sou	Teame_Da	Page	
1	US 4112215		USP	19780905	6	C
2	US 4283318		USP	19810811	8	N
3	US 4447562		USP	19840508	8	A
4	US 4702917		USP	19871027	6	E
5	US 5001169		USP	19910319	13	1
6	US 5019393		USP	19910528	10	E
7	US 5112615		USP	19920512	16	S
8	US 5126140		USP	19920630	15	T
9	US 5167960		USP	19921201	11	E
10	US 5204382		USP	19930420	7	I
11	US 5266608		USP	19931130	6	E
12	US 5352715		USP	19941004	8	I
[redacted]	US 5356629		USP	19941013	6	
14	US 5434146		USP	19950718	33	C
15	US 5447966		USP	19950905	9	T
16	US 5541172		USP	19960730	34	C
17	US 5639796		USP	19970617	5	I
18	US 5662913		USP	19970902	21	A
19	US 5744515		USP	19980428	13	N
20	US 5792469		USP	19980811	12	E
21	US 5814340		USP	19980929	34	C
22	US 5891506		USP	19990406	10	C
23	US 5902832		USP	19990511	8	N
24	US 5922025		USP	19990713	11	S
25	US 5955096		USP	19990921	16	N
26	US 6054142		USP	20000425	14	E
27	US 6103255		USP	20000815	11	E
28	US 6131580		USP	20001017	43	T
29	US 6166173		USP	20001226	39	E
30	US 6214331		USP	20010410	38	E
31	US 6231879		USP	20010515	14	E
32	US 2001005		US-	20011213	14	T
33	US 6376644		USP	20020423	32	E
34	US 2002009		US-	20020718	14	T
35	US 6448303		USP	20020910	8	E

US-PAT-NO: 5356629

DOCUMENT-IDENTIFIER: US 5356629 A

TITLE: Composition for effecting bone repair

---------- KWIC ---------

Detailed Description Text - DETX (16):

The amount of liquid medium which can be introduced, based on the total weight
of the wetted moldable composition, is preferably about 5 to about 60% by weight, more preferably about 15 to about 54% by weight and most preferably about 30 to about 48% by weight. The liquid medium introduced into the composition which interacts with the matrix to form the moldable composition can be a hydrating medium, i.e., contains water, so that compatibility of the

moldable composition will be enhanced with a body into which the composition is
implanted. In this regard, the liquid medium is preferably selected from water, saline solution, blood or any combination of these. Additionally, polyoxyethylene-polyoxypropylene block copolymer marketed under the name Poloxamer or Pluronic by BASF Wyandotte, Mich. can be incorporated into the

matrix as the suitable liquid medium either alone or together with water, saline solution, blood, etc.

Current US Cross Reference Classification - CCXR (4):

[redacted]

06/04/01

EAST Browser - L7: (35) 1 and (tween... | US 6... 1 B1 | Tag: S | Doc: 30/35 (SORTED) | Format : KWIC

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	Document I	R	Sou	Issue Da	Page	
1	US 4112215		USP	19780905	6	C
2	US 4283318		USP	19810811	8	N
3	US 4447562		USP	19840508	8	A
4	US 4702917		USP	19871027	6	P
5	US 5001169		USP	19910319	13	I
6	US 5019393		USP	19910528	10	B
7	US 5112615		USP	19920512	16	S
8	US 5126140		USP	19920630	15	T
9	US 5167960		USP	19921201	11	H
10	US 5204382		USP	19930420	7	I
11	US 5266608		USP	19931130	6	B
12	US 5352715		USP	19941004	8	I
13	US 5356629		USP	19941018	6	C
14	US 5434146		USP	19950718	33	C
15	US 5447966		USP	19950905	9	T
16	US 5541172		USP	19960730	34	C
17	US 5639796		USP	19970617	5	I
18	US 5662913		USP	19970902	21	A
19	US 5744515		USP	19980428	13	M
20	US 5792469		USP	19980811	12	B
21	US 5814340		USP	19980929	34	C
22	US 5891506		USP	19990406	10	O
23	US 5902832		USP	19990511	8	M
24	US 5922025		USP	19990713	11	S
25	US 5955096		USP	19990921	16	M
26	US 6054142		USP	20000425	14	B
27	US 6103255		USP	20000815	11	P
28	US 6131580		USP	20001017	43	T
29	US 6166173		USP	20001226	39	B
	US 6214331		USP	20010413	38	L
31	US 6231879		USP	20010515	14	B
32	US 2001005		US-	20011213	14	T
33	US 6376644		USP	20020423	32	B
34	US 2002009		US-	20020718	14	T
35	US 6448303		USP	20020910	8	H

p-toluene sulfonic acid emulsified in 100 g o-xylene containing 3 g PLURONIC L92 and ultrasonified using a Branson Ultrasonifier (setting 7; 50% duty cycle; 2 min.). The o-xylene/water azeotrope was stripped in a Buchler Rotovap rotary evaporator, and o-xylene was added to the emulsion until 45 ml water and 185 ml o-xylene were removed. The final emulsion was then ultrasonified as before mentioned for this run, the catalyst was added, and the emulsion was tumbled end-over-end in capped bottles for 12 hours at room temperature.

Detailed Description Text - DETX (230):

Add 0.5 ml of polyoxyethylene [20] sorbitan monooleate (Tween -80) into reactor.

Detailed Description Text - DETX (271):

1 gram HPMC in 50 ml of 0.5M NaOH+30 gram of EGDGE+3.2 grams of Tween 80

Detailed Description Text - DETX (291):

1.0 g Sodium Hyaluronate in 50 mL of 0.75M NaOH+3 mL Tween 80

Detailed Description Text - DETX (293):

150 mL toluene +9 mL Sorbitan Triooleate (SPAN 85)

Detailed Description Text - DETX (300):

1.0 Chondroitin Sulfate A in 50 mL of 0.75 M NaOH .+-.3 mL Tween 80

Detailed Description Text - DETX (302):

150 mL toluene +9 mL Sorbitan Triooleate (SPAN 85)

Detailed Description Text - DETX (309):

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1	US 2002015		US-	20021024	26	M
2	US 2002015		US-	20021017	15	M
3	US 2002015		US-	20021017	10	S
4	US 6461385		USP	20021008	16	M
5	US 2002014		US-	20021003	16	C
6	US 6458867		USP	20021001	19	H
7	US 6458148		USP	20021001	7	S
8	US 2002013		US-	20020919	9	M
9	US 6451059		USP	20020917	7	V
10	US 2002012		US-	20020912	6	H
11	US 6448303		USP	20020910	8	H
12	US 6447514		USP	20020910	19	P
13	US 2002012		US-	20020829	16	R
14	US 6441073		USP	20020827	10	B
15	US 2002011		US-	20020822	72	I
16	US 2002011		US-	20020822	12	B
17	US 6436137		USP	20020820	7	C
18	US 2002011		US-	20020815	8	G
19	US 6428561		USP	20020806	4	B
20	US 2002010		US-	20020801	19	M
21	US 6425923		USP	20020730	8	C
22	US 2002009		US-	20020725	11	M
23	US 2002009		US-	20020718	14	T
24	US 2002009		US-	20020718	24	P
25	US 6420475		USP	20020716	27	T
26	US 6420454		USP	20020716	5	B
27	US 6419709		USP	20020716	14	B
28	US 2002009		US-	20020711	15	T
29	US 6417247		USP	20020709	20	P
30	US 6417246		USP	20020709	4	D
31	US 2002008		US-	20020627	15	D
32	US 6410612		USP	20020625	13	D
33	US 6406498		USP	20020618	19	B
34	US 6403758		USP	20020611	8	B
35	US 6403675		USP	20020611	43	B
36	US 6403671		USP	20020611	9	P
37	US 6387978		USP	20020514	7	M
38	US 6387391		USP	20020514	15	B
39	US 2002005		US-	20020509	5	R
40	US 6384107		USP	20020507	14	A
	US 6384105		USP	20020507	7	L

(12) **United States Patent**
He et al.

(10) **Patent No.: US 6,384,105 B1**
(45) **Date of Patent: *May 7, 2002**

(54) **POLY(PROPYLENE FUMARATE) CROSS LINKED WITH POLY(ETHYLENE GLYCOL)**

(75) Inventors: **Shulin He**, Houston, TX (US); **Michael J. Yaszemski**, Rochester, MN (US); **Antonios G. Mikos**, Houston, TX (US)

(73) Assignee: **William Marsh Rice University**, Houston, TX (US)

(*) Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/550,372**

(22) Filed: **Apr. 14, 2000**

Related U.S. Application Data

(60) Provisional application No. 60/129,577, filed on Apr. 16, 1999, provisional application No. 60/146,991, filed on Aug. 3, 1999, provisional application No. 60/167,328, filed on Nov. 24, 1999, and provisional application No. 60/167,388, filed on Nov. 24, 1999.

(51) Int. Cl.[7] C08F 8/28; A61F 2/28

(52) U.S. Cl. 523/113; 523/115; 525/385; 525/386

(58) Field of Search 525/447, 301, 528/306; 523/113, 115, 523; 525/385, 386

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,701,746	A *	10/1972	Kroekel	525/386
4,843,112	A	6/1989	Gerhart et al.	523/115
4,888,413	A *	12/1989	Domb	528/272
5,286,763	A *	2/1994	Gerhart et al.	514/772.4
5,364,627	A *	11/1994	Song	424/443
5,420,179	A *	5/1995	Fourquier et al.	523/523
5,733,951	A *	3/1998	Yaszemski et al.	523/116
5,989,579	A *	11/1999	Domogas et al.	427/427
6,071,982	A *	6/2000	Wise et al.	523/113
6,124,373	A *	9/2000	Peter et al.	523/116
6,153,664	A *	11/2000	Wise et al.	523/115

* cited by examiner

Primary Examiner—Veronica P. Hoke
(74) *Attorney, Agent, or Firm*—Conley, Rose & Tayon, P.C.

(57) **ABSTRACT**

New injectable, in situ crosslinkable biodegradable polymer composites comprise poly(propylene fumarate) (PPF), poly (ethylene glycol)-dimethacrylate (PEG-DMA), an, optionally, β-tricalcium phosphate (β-TCP). A method for controlling the crosslinking characteristics of the composites, including the maximum crosslinking temperature and the gel point, as well as the properties of the cross linked composites such as the compressive strength and modulus and the water holding capacity, is disclosed.

12 Claims, 2 Drawing Sheets

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1	US 2002015		US-	20021024	26	M
2	US 2002015		US-	20021017	15	M
3	US 2002015		US-	20021017	10	S
4	US 6461385		USP	20021008	16	M
5	US 2002014		US-	20021003	16	C
6	US 6458867		USP	20021001	19	H
7	US 6458148		USP	20021001	7	S
8	US 2002013		US-	20020919	9	M
9	US 6451059		USP	20020917	7	V
10	US 2002012		US-	20020912	6	H
11	US 6448303		USP	20020910	8	H
12	US 6447514		USP	20020910	19	P
13	US 2002012		US-	20020829	16	R
14	US 6441073		USP	20020827	10	B
15	US 2002011		US-	20020822	72	I
16	US 2002011		US-	20020822	12	B
17	US 6436137		USP	20020820	7	C
18	US 2002011		US-	20020815	8	G
19	US 6428561		USP	20020806	4	B
20	US 2002010		US-	20020801	19	M
21	US 6425923		USP	20020730	8	C
22	US 2002009		US-	20020725	11	M
23	US 2002009		US-	20020718	14	T
24	US 2002009		US-	20020718	24	P
25	US 6420475		USP	20020716	27	T
26	US 6420454		USP	20020716	5	B
27	US 6419709		USP	20020716	14	B
28	US 2002009		US-	20020711	15	T
29	US 6417247		USP	20020709	20	P
30	US 6417246		USP	20020709	4	D
31	US 2002008		US-	20020627	15	D
32	US 6410612		USP	20020625	13	D
	US 6406498		USP	20020613	19	B
34	US 6403758		USP	20020611	8	B
35	US 6403675		USP	20020611	43	B
36	US 6403671		USP	20020611	9	P
37	US 6387978		USP	20020514	7	M
38	US 6387391		USP	20020514	15	B
39	US 2002005		US-	20020509	5	R
40	US 6384107		USP	20020507	14	Al
41	US 6384105		USP	20020507	7	P

(12) **United States Patent**
Törmälä et al.

(10) **Patent No.: US 6,408,478 B1**
(45) **Date of Patent: Jun. 18, 2002**

(54) **BIOACTIVE, BIOABSORBABLE SURGICAL COMPOSITE MATERIAL**

(75) Inventors: **Pertti Törmälä**; **Tero Vallittu**; **Hanna Niiranen**; **Timo Pohjonen**, all of Tampere; **Pertti Rokkanen**, Helsinki, all of (FI)

(73) Assignee: **Bionx Implants Oy**, Tampere (FI)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/148,838**

(22) Filed: **Sep. 4, 1998**

(51) **Int. Cl.**[7] **A61F 2/36**
(52) **U.S. Cl.** **623/23.75**; 623/11.11
(58) **Field of Search** 606/53; 623/11, 623/11.11, 23.75, 23.58, 23.61, 424/423, 424

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,539,256	A		9/1985	Shipman
4,612,923	A		9/1986	Kronenthal
4,655,209	A		4/1987	Törmälä et al.
4,655,777	A	*	4/1987	Dunn et al. 623/16
4,743,257	A		5/1988	Törmälä et al.
4,863,472	A		9/1989	Törmälä et al.
4,898,186	A		2/1990	Ikada et al.
4,968,317	A		11/1990	Törmälä et al.
5,084,051	A		1/1992	Törmälä et al.
5,502,092	A	*	3/1996	Barrows et al. 521/64
5,562,704	A		10/1996	Tamminmäki et al.
5,569,250	A		10/1996	Sarver et al.
5,674,286	A	*	10/1997	D'Alessio et al. 623/11.11
5,700,477	A	*	12/1997	Rosenthal et al. 424/426
5,782,789	A	*	7/1998	Herweck et al. 602/52
6,013,853	A	*	1/2000	Athanasiou et al. 623/23.75

FOREIGN PATENT DOCUMENTS

EP	0146398	6/1985
EP	423155	4/1991
EP	0442911	8/1991
EP	449 867	10/1991
EP	0795335 A1	9/1997
EP	0933089 A2	8/1999
FI	88111	12/1992
FI	98136	1/1997
FI	965111	1/1997
FI	952554	2/1997
FI	955547	12/1997
WO	WO 90/04982	5/1990
WO	WO 96/21628	7/1996
WO	WO 96/41596	12/1996
WO	WO 97/11725	4/1997

OTHER PUBLICATIONS

Niiranen et al., "Self-Reinforced Bioactive Glass–Bioabsorbable Polymer Composites", Mat. Res. Soc. Symp. Proc., vol. 550, 1999.

Modern Plastics, Guide to Plastics, 1987, McGraw-Hill, New York, pp. 152–153 and Modern Plastics Encyclopedia, Mid–Oct. Issue 1989, McGraw-Hill, New York, 1989, pp. 600, 606–607, 608–609, 614.

D. McGuire, et al., American Academy of Orthopaedic Surgeons, New Orleans, 65th Annual Meeting, Mar. 19–23, 1998, Final Program, p. 261.

S.I. Ertel et al., J. Biomed. Mater. Res., 29 (1995) 1337–1348, and P. Tormala et al., Proc. Instn. Mech. Engrs Part H, 212 (1998) 101–111.

N. Inoue, in Hydrostatic Extrusion, N. Inoue and M. Nishihara (eds), Elsevier Applied Science Publishers, Barking, England, 1985, p. 333–362.

M. Brink et al., Bioceramics, 9, 1996, pp. 127–130.

T. Kokubo et al. In Bioceramics, vol. 2, ed. G. Heinke, Deutsche Keramische Gesellschaft e. V., Cologne, Germany, 1990 pp. 235–242.

Marcolongo et al., J. Biomed. Mater. Res., 39 (1998) pp. 161–170.

M. Manninen and T. Pohjonen, Biomaterials, 14 (1993) 305–312.

* cited by examiner

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(74) *Attorney, Agent, or Firm*—Kenyon & Kenyon

(57) **ABSTRACT**

The Applicants' invention is a bioactive, biocompatible, bioabsorbable surgical composite that is fabricated bioabsorbable polymers, copolymers or polymer alloys that are self-reinforced and contain ceramic particles or reinforcement fibers, and also can be porous. The composite of the invention can be formed into devices like pins, screws, plates, tacks, bolts, intramedullary nails, suture anchors, staples, and many other devices, all of which are useful in bone-to-bone, soft tissue-to-bone or soft tissue-to-soft tissue fixation or in fixation of bioabsorbable and/or biostable implants in or on bone or soft tissue.

10 Claims, 9 Drawing Sheets